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by Philip Barshofsky

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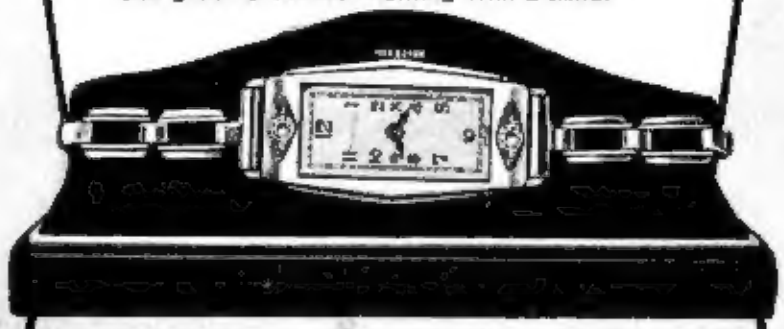

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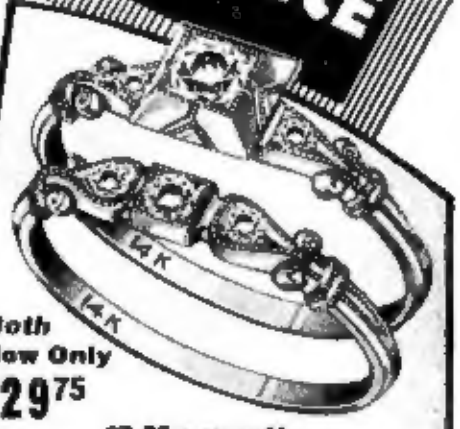

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ON THE COVER this month we see a vivid scene from "One Prehistoric Night" by Philip Barshofsky. (Cover by Paul.)

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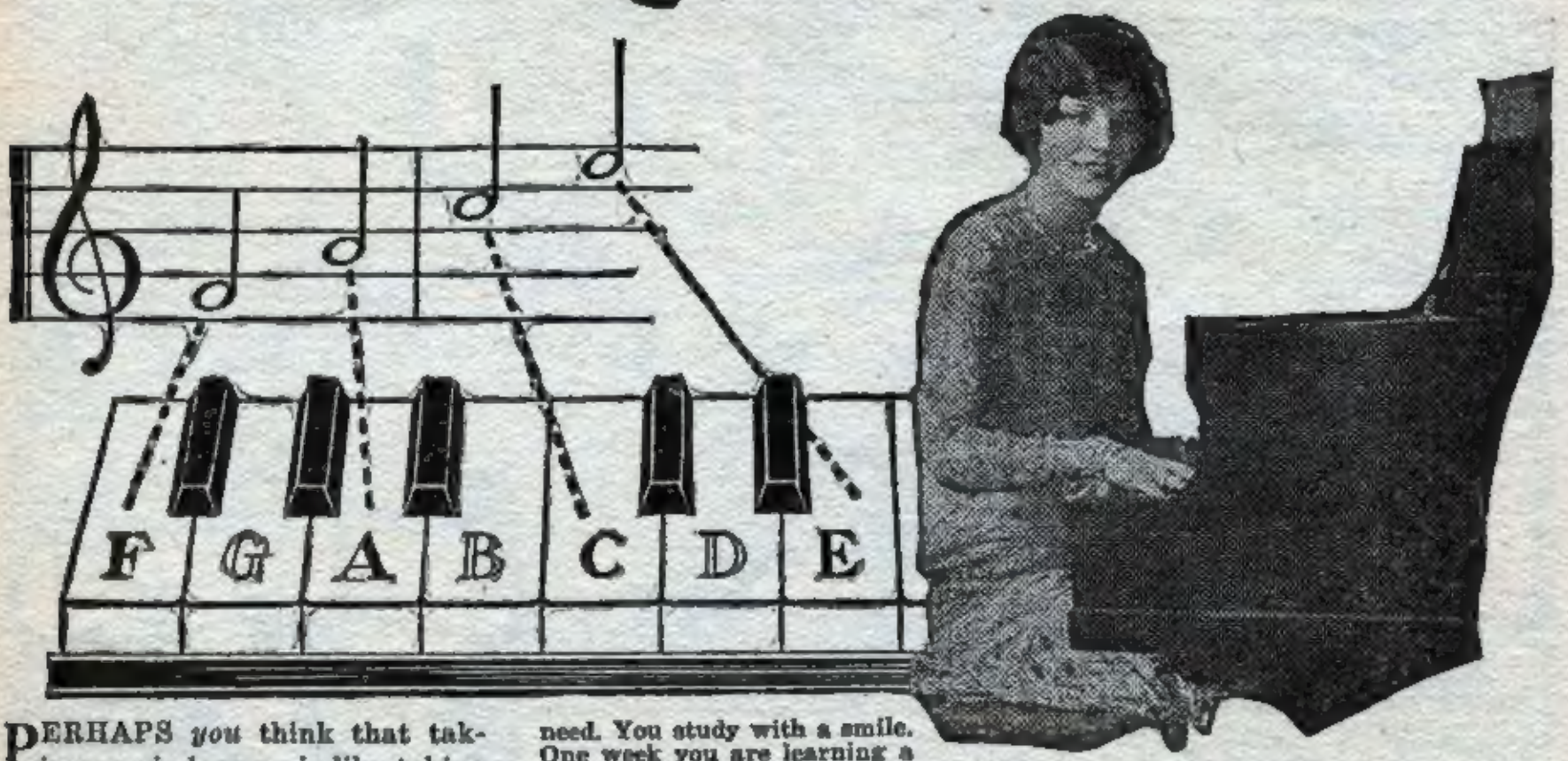
To those who think Learning Music is hard-



PERHAPS *you* think that taking music lessons is like taking a dose of medicine. It isn't any longer!

As far as you're concerned, the old days of long practice hours with their horrid scales, hard-work exercises, and expensive personal teachers' fees are over and done with.

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Do you wonder that this remarkable way of learning music has already been vouched for by over 700,000 people in all parts of the world.

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Soon when your friends say, "please play something," you can surprise and entertain them with pleasing melodies on your favorite instrument. You'll find yourself in the spotlight — popular everywhere. Life at last will have its silver lining and lonely hours will vanish as you play the "blues" away.

New Friends—Better Times

If you're tired of doing the heavy looking-on at parties—if always listening to others play has almost spoiled the pleasure of music for you—if you've been envious because they could entertain their friends and family—if learning music has always been one of those never-to-come-true dreams, let the time-proven and tested home-study method of the U. S. School of Music come to your rescue.

Don't be afraid to begin your lessons at once. Over 700,000 people learned to play this modern way—and found it easy as A-B-C. Forget that old-fashioned idea that you need special "talent." Just read the list of instruments in the panel, decide which one you want to play, and the U. S. School of Music will do the rest. And bear in mind no matter which instrument you choose, the cost in each case will average the same—just a few cents a day. No matter whether you are a mere beginner or already a good performer, you will be interested in learning about this newly perfected method.

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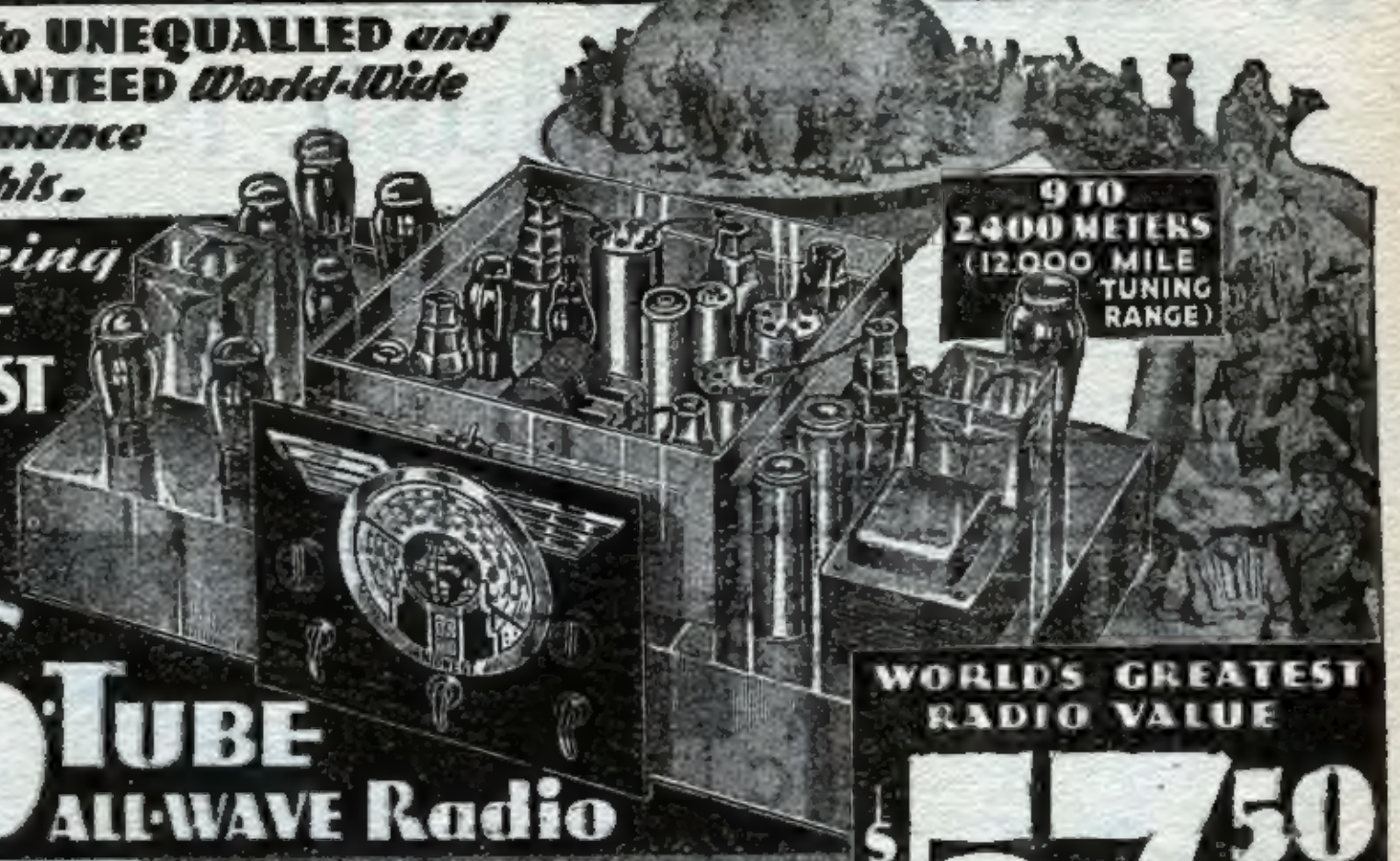

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VOLUME 6
No. 6

WONDER Stories

NOVEMBER
1934

. . . . Prophetic Fiction is the Mother of Scientific Fact . . . .

HUGO GERNSBACK, *Editor-in-Chief*
CHARLES D. HORNIG, *Managing Editor* FRANK R. PAUL, *Art Editor*
C. P. MASON, *Associate Editor*

THE WONDERS OF BIO-MECHANICS

By HUGO GERNSBACK

FOR those human beings who assume rashly that our present mechanical era is original in all aspects, it will probably come as a shock that nothing under the sun is new. Indeed, most of the basic and fundamental tools which man uses in order to build up his civilization are not only antique, but go back to geological time. For every major artificial tool which man uses, nature has used it for—not millions, but billions of years.

Take, for instance, the ordinary lever. What better lever is there than the animal leg or arm? The lever action is well nigh perfect, although it has been used on this planet successfully for at least two billion years.

The ball-and-socket joint, used in your automobile and other machinery, has its prototype in the knee and arm joints of practically all mammals; only the animal type is a great deal more efficient than the mechanical one created by man and, certainly, lasts much longer than the steel or brass variety.

When it comes to a mechanical grinder, there is nothing that will beat the jaw and the teeth of the mammal and fish and other animals. The animal jaw also operates a great deal more efficiently and is less cumbersome and, probably, takes far less power.

And, when we look to architecture and building, as far as economy, strength, design, and what-not are concerned, the honeycomb of the bee may be called a classic. Its six-cornered cells have a beautiful geometric pattern, and it is certain that the bee does the work at least as efficiently in turning out this marvel, if not more so, than the machine which manufactures a similar-appearing automobile radiator.

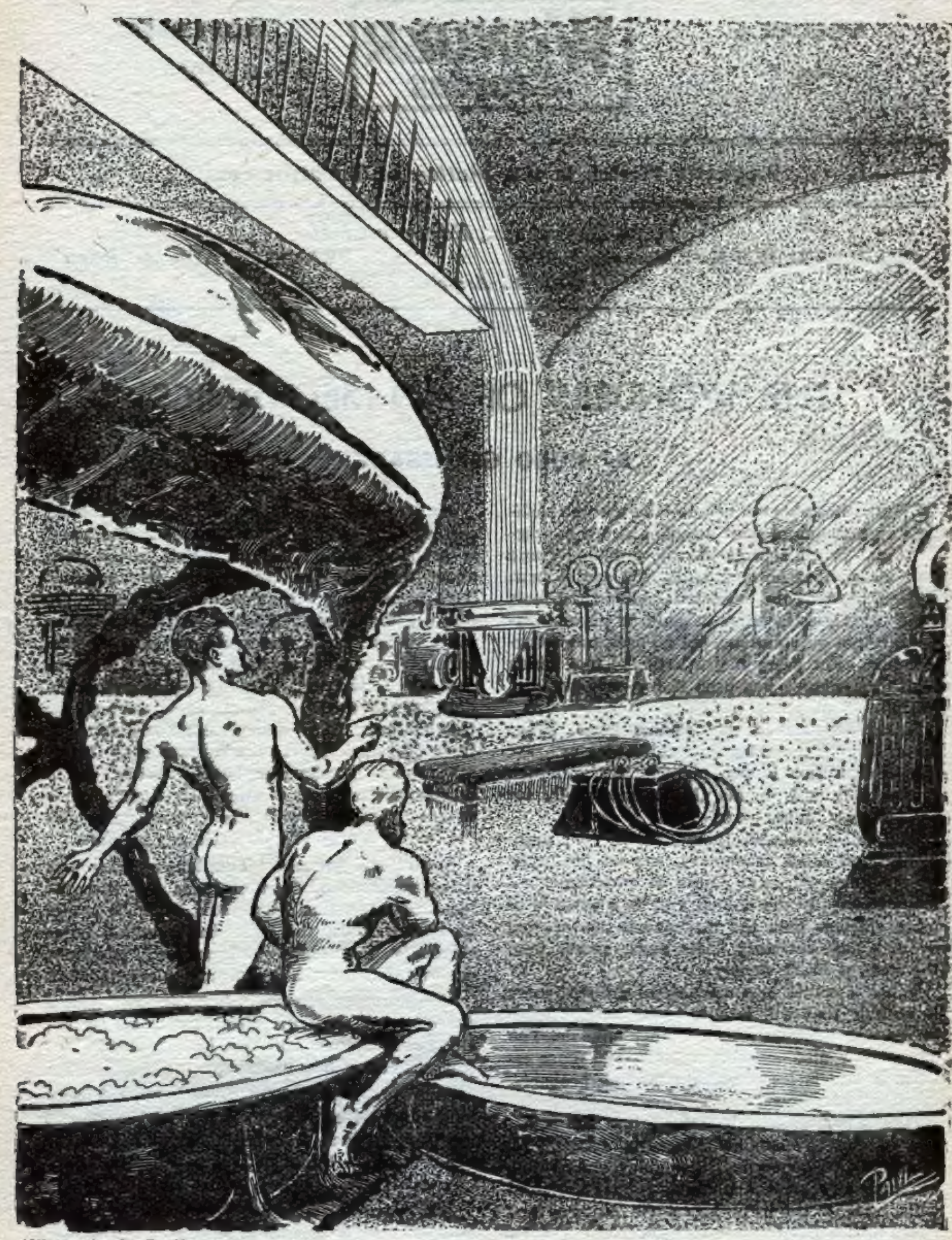
As for smoke screens, which our navies have just started using in the past decade, the squid is probably having a good laugh in the deep about this; for the reason that its ancestors have been doing the same thing far more efficiently for billions of years past. Indeed, the inky stream which the squid throws into the path of its enemies is laid down with a great deal more efficiency. But the squid is not the only one to throw a poisonous screen because this has been done in the insect world for millions of years. Thus certain insects, as for instance the "bombardier beetle," throw out a poisonous gas cloud to stun their enemies, in a manner parallel to what the contending armies did in the World War in their gas warfare.

Shears and pincers? The lobster claw was there hundreds of countless ages ago with the identical mechanical idea. And, when it comes to boring tools, the little insect which bores efficiently even into lead-armored telephone cables, might have a few words to say about it.

We started electrocuting people only a few decades ago. But the electric eel and certain electric fish have had the idea "patented" at least several billion years ago.

And, for light produced with an efficiency undreamed of by man, we have only to look at the firefly, which produces light about 99% efficiently, when the best that man can do today is a scant 3%.

And man's latest wonder—Television, has been known for several million years. The animal eye is a far better and more efficient television apparatus than man can ever hope to build.



(Illustration by Paul)

A section of the wall opposite them glowed suddenly red. The next moment a figure materialized.

DAWN TO DUSK

By EANDO BINDER

PART ONE

PROLOGUE

(By the Author)

● The following story, immense in its scope, soon brought realization to the author that words and his own conceptions were hardly able to cope with the problem it entailed of a far-distant future of civilization. Perhaps the attempt does not justify the result, but it proved fascinating along with its almost forbidding immensity of reach, beyond the power of the author to resist trying to put in words a picture of things that might come to pass—but which much more likely will not.

Nevertheless the attempt has been made, inadequate as it may be to fill out the concept, and the author asks for the whole-hearted lenience of the readers in their criticism, mental and spoken, that will as surely follow the reading—as surely as the sun will rise and set on this world tomorrow.

The author went ahead with the story—much as it seemed impossible of expression after a careful start—determined to finish what he realized could never really present a living picture of that future. However, he is consoled to remember that similar attempts have been made, very enthusiastically accepted by the broad-minded scientifiction reading public, and hopes that there will be some intangible commendation for his humble trial.

Naturally, of course, and quite unavoidably, the English language had to be used as a substitute for the tongue that obtained in that period of civilization; and if at times colloquialisms, idioms, and present-day ideas abound as they most certainly should not were the story true, the author feels sure the readers will not condemn, but will rather condone, these anachronisms. For the sake of clarity, they are in the story, as otherwise it would be quite unreadable and in fact impossible of presentation, for who of us today can foretell the mode of expression of the far future?

So with this more or less apologetic introduction—apologetic not because of the story, but of the manner of presentation—the author places in your hands an idea of the remote future. He is not so much concerned in giving *his own* idea of that time, but more in so stimulating the minds of the readers—by the vagueness of detail—that they will themselves fill out the picture in their own minds. Much has been merely suggested and hinted at rather than stated, and it is the hope of the author that he has in some small measure led the way—with his poor dim candle of inadequate language—to a vision, however obscure, of a possible future. Imagination is the highest attainment of Intellect. Let that be the moral of the story.

● By this time, Mr. Binder has become one of our best authors, in the opinions of the readers, and each of his stories has been better than the one preceding. He broke all records in "The Green Cloud of Space" and went that one better in "Enslaved Brains." We believe that you will like "Dawn to Dusk" even more.

The author's style is distinctly different from all others, and he makes you *live* the stories as you read them. He is really a master at composition and knows how to keep your eyes glued to the page as few others can do.

You will find "Dawn to Dusk" gigantic in scope and—well, let the author's prologue properly introduce you to many hours of enjoyment.

CHAPTER I

A Famous Biologist

● With a low whistle of wonder, Andrew Boswell stared at the letter in his hand. Then a puzzled frown creased his young forehead. Again he looked at the signature at the end of the letter, small square letters spelling the name: "Anton Reinhardt." It recalled to his mind only vague memories of previous acquaintanceship. More than five years before, it was, that he had last seen the man, talking over with him salient points of a lecture that had been delivered by Reinhardt on "A New Theory of Biology." How he had come to be talking to the lecturer after it was over, was never clear to Boswell. All he

knew was that while standing at the back of the hall, pensively digesting certain enigmatical statements that had been brought up in the lecture, the figure of Reinhardt had seemingly materialized out of thin air, asking kindly enough, "Well, Mr. Boswell, what do you think of it?" Of course, it wasn't so strange that Reinhardt should stop to talk to him, for the biologist had a remarkable gift for remembering his students to the last man, and Boswell had figured in many of his classes. But this letter—it struck chords of psychic bewilderment in his responsive mind that had not yet closed to the mysteries of life still clothed in rosy romanticism.

In the first place, Anton Reinhardt was no mean figure in the world of science; his array of five degrees dovetailed into his eminence as a respected and renowned biologist. Only certain of his radical and openly-asserted hypotheses in the field of his chosen work prevented the authoritative class of conservatives in science from hailing him as THE outstanding biologist of the time. He seemed to have a dual personality. He would appear in the scientific journals as the methodical, materialistic originator of little bits of research that would inspire his contemporaries to say earnestly, "Genius of the first order," and then flaunt dangerously hare-brained ideas in less restricted publications that would cause those same men to shake their heads sadly.

In the second place, Andrew Boswell, then a B.S., was associated in no way with any of that "genius." He had not even majored in the science that most concerned the famous biologist, having chosen the organic chemistry that so fascinated and intrigued his eager mind. True, he had elected to absorb from the eloquent Professor Reinhardt pearly drops of wisdom in biology as a supplement to his studies in physiological chemistry, but never, in all the many months of the course, had he distinguished himself in any way. He had been childishly content to sit on clouds of imaginative vaporing, listening to the words of the professor as to a distant waterfall, only the meaning, and the hidden intimations, impinging on his brain, never the spoken words. Boswell could still remember how positively fascinating it had been to steadfastly watch the features of the famous biologist as he expounded and paraphrased the axioms of that science that filled his life, his face a mirror of subtle, hidden paradoxes that would shake the mind, could they have been understood.

Outside of the student-teacher relationship, Boswell had met the professor only twice, once accidentally in the halls when the former had screwed up enough courage to ask for clarification of one little point in the last lecture, and once after class hours at the professor's request. In the empty laboratory with the long shadows of evening sweeping through, spreading a blanket of mysticism over mediocre chairs and benches, microscopes and flasks, the young chemist had found the giant reputation of the professor only a cover to his kindly, very human nature. The intimate contact failed to blossom into warm friendship, mainly due to the fact that Boswell graduated shortly after, leaving Harvard for definite ideas of mental expansion to make his M.S. at Massachusetts Institute of Technology. Only once after that had they met, when the biologist asked him what he thought of the lecture, as related above.

So it was, as these episodes of the past flashed through the young chemist's mind, that Boswell found it hard to credit the letter in his hand signed with that intriguing name, "Anton Reinhardt." He fluttered the paper up and down, watching it with unseeing eyes, trying to conjure up a plausible reason for it. Unable to find anything reasonable, he thrilled in the ecstasy of the awakening of that spark of intangible hunger for unethical mysticism that reposes in the best of us. Here, he told himself in voiceless glee, was the possibility of gratifyingly subtle—perhaps even weird—happenings that cold, emotionless science refused to credit in its inexorable march of materialism. Actually, the letter with its commonplace words and mediocre phrases offered no basis for such

imaginative ruminations, but romantic youth needs little impetus to plunge into illusive fantasy that springs from the sensitive mind, and Andrew Boswell could hardly be called taciturn or cold-fact complexed.

He read the letter again to see what new combinations of delightful dreaming he could find inspiration for.

"Dear Mr. Boswell," it read, "this is a letter only in that it comes in an envelope and was delivered by mail. Outside of that it is a 'call to arms.' Let us skip over such ordinary things as my telling you about the weather here in Boston, or telling you that my head is now completely bald, and other countless trifles, and jump right head-first into the reason for this letter.

"Despite the small connection we have had in the past which was purely academic in nature, I am requesting that you pay me a visit here in my home and private laboratory, to which, as you may remember, I moved over four years ago from my former quarters in New Haven. You will find the address enclosed separately.

"All reasons, motives, and personal impulses will be explained to you in the flesh, for, beyond a doubt, you are surprised to hear from me.

"I presume that you can break away from your work this coming Sunday. If you start early enough, you can be here for dinner, and I promise to release you in time to get back to Providence for work Monday.

"Please wire me if you will come Sunday noon, and, I might add, I desire your presence greatly, more than I have intimated in these few words. Make it a point, may I urge, to comply, even at the cost of minor plans of your own for that date. Of course, it may be difficult for you to dash up here on so little notice. If absolutely impossible, I will arrange for some other date in the near future."

● That was the end of the astonishing missive that had started the whirl of incongruous speculations in Boswell's responsive mind. The last sentence attested to the fact that Professor Reinhardt wanted to have him there for some definite reason, if not one time, then another. His almost impolite way—though to Boswell the terse disregard of convention struck him as delightfully mysterious—of next-door-to-demanding Boswell's presence at his home seemed to augur something above the sanities of humdrumness.

Wonder and momentary astonishment changed to a sort of nameless joy in the breast of the young chemist. Two years of bread-winning as analyst for a cotton producing concern had gradually taken the edge off his keen interest in life, and dulled the bright surface of his formerly-untrammeled imagination. This letter was all he needed to make his soul leap in response to the unmentioned, but strongly suggested, adventure—in the sense of a departure from things ordinary—that lurked between the lines. Andrew Boswell, with the magic that absence had lent to the signed name, could think of the sender of the letter as a conjurer in disguise, a necromancer under conventional camouflage. Anton Reinhardt had always been a "radical" in science, an upholder of the motto of all free-thinkers—"there are more things in heaven and earth," etc.; surely he could not have changed, thought the young chemist to himself. Boswell felt that even an afternoon's venture into realms of thought with a kindred soul as the professor had proved himself to be back at Harvard during that one intimate conversation they had had together alone, would fully repay any trouble of leaving town and losing some sleep.

Without further thought, Boswell hurriedly flung on hat and topcoat as if the time element had suddenly become important—but really because his youthful enthusiasm prompted him to joyful haste—and dashed out of the house in which he rented two rooms. A long walk down quiet streets that had always hinted at the bizarre and occult with their masking gloom, brought him to a telegraph station. He penned a few words that promised his presence at the specified time and place and left to walk to his lodgings

much more slowly and more dignified than coming there.

Andrew Boswell was an orphan. His mother had died during his infancy, and his father resigned life just a few years later, leaving his only son in the care of the one and only near relation the boy had —an uncle. With the small sum of money left by the father, young Andrew was sent through college, fulfilling the dying wish of his parent. Loath to go back to Albany to live with his uncle, the matriculated Master of Science made connections with the cotton concern in Providence and there took up his residence. He had lived alone and quite isolated, content to fill his leisure hours with reading, both light and heavy, and occasional short journeys to favored spots for recreation. And yet he had never found boredom in life; a virile imagination had kept him young in spirit as well as body.

It was Friday evening as Boswell drew the fresh spring air into his lungs in great volumes, returning from the telegraph office. Whenever he walked the streets, passing figures always registered to his consciousness as the dim effigies of a shadow world. Tonight it was even more so and his quickened thoughts revolved into the past, stirred from the depths by that magic name affixed to the queer letter which had burst like a bombshell in the quiet fields of his dispassionate existence.

The young cotton chemist found sleep beyond his reach for many hours as he retired to a late bed. His mind ran a riot of colorful possibilities which might result from that summons to the home of the biologist, anything from a new theory of life to a revolutionizing discovery produced in the laboratory. But Boswell could not know that his wildest imaginings had fallen far short of the truth.

* * *

Eleven o'clock Sunday morning found Andrew Boswell standing before the house to which he had been guided in a taxi, the muffled roar of the motor dwindling in the vast quiet of a Boston Sabbath. He was somewhat taken aback at the pretentiousness of the stucco building, hardly expecting anything so elaborate, although he had always known Professor Reinhardt to be well-to-do. At the end of the private drive for automobiles, he could see beside the garage two stone buildings, which presumably made up the laboratory, well shaded by tall and leafy trees. He paused a moment to look about the ostentatious neighborhood and then rang the front door bell.

A faultlessly clothed, passionless visaged manservant appeared in the doorway.

"Mr. Andrew Boswell?" he said in impeccable politeness. "You will come right in. The master is expecting you."

Leaving his wraps with the butler, Boswell stepped into the drawing room pointed out by the servant. He lit a cigarette and gazed about curiously at the simple magnificence of the room. He declined to sit in any of the comfortable-looking chairs, but wandered about examining the various pictures on the walls. He was startled out of a momentary revery by the opening of a door.

Boswell turned to face his host, whose expressive face was lit up with a beaming smile of welcome.

"Why, hello Andrew," he cried in his deep voice. "How are you, my boy?"

Boswell grasped the outstretched hand eagerly, a slight flush of youthful embarrassment on his face.

"Very well, thank you, Professor. And you?"

"Couldn't be better, except that old age creeps upon me steadily. Witness the signs." He touched first his shiny bald pate and then his paunch which had increased in size considerably since they had last met. "But this is no way to greet the young—talking about age. Come, sit down and tell me all about yourself."

They seated themselves facing each other and fell into easy conversation which can be so delightful between two souls that have mutual ideas and opinions. Boswell found the professor little changed from when he had known him years before. He had still that burning look in his

kindly brown eyes, that fiery personality that had won him many friends, the deep lines of thought grooved into his features —perhaps a little deeper now—and the calm poise of a man whom trifles cannot disturb. His voice, deep and unfaltering, still carried that indefinable note of mysticism and hidden intimation that had so stirred Boswell as a student, a voice that reflected a mind of vast understanding and wisdom.

"Yes, I know you were surprised that I should give so little notice of this visit," explained Professor Reinhardt after they had disposed of the outlines of their activities in the past five years that they had been apart. "But the reason is this: I had already arranged with my other guests—five men whom I have invited here for the same purpose you are here—that they should come here today. I had some trouble finding out where you were, but finally received an answer from the Institute which had promised to help me. Then I sent that letter—or what goes for a letter."

Boswell showed surprise that five other men had been asked to come, and then inquired: "I confess this has been a bit mysterious. I've been . . . . ."

"Tut, tut, now," interrupted the professor with a slight smile. "If you will forgive me, my young friend, I shall withhold the reason for this get-together until after dinner, when I expect the others. For the time being, I'll show you through my laboratory."

The open assertion of a portentous motive behind the professor's act in calling together six men fully confirmed the young chemist's nebulous anticipations of something exciting, or at least extraordinary, in the wind and he followed the biologist out the back way with a singing heart.

"This is the general storeroom and animal house combined," commented the professor as he threw open the door to the smaller of the two stone buildings. "Actually, Andrew, I've concerned myself mainly in physiological work in my private researches since I left Harvard. You remember my theory of 'Spores of Intelligent Life'—that intelligence never evolves, as evolutionists would have it, but that it comes from outer space in the form of indestructible spores which evolve into rational life when they meet favorable conditions, as when they drift to a young and sunshiny planet."

"Yes, I do remember that lecture you gave. I seem to remember, too, that it met with . . . . well, with unfavorable criticism," said Boswell.

"It certainly did," agreed Reinhardt with a chuckle that had a faint echo of bitterness in it. "It rebounded *in toto* from the ramparts of the conservatism—which, Boswell, is just another name for narrow-mindedness—that submerges present-day science, every ism and ology of it. What a fantastic idea, they politely pooh-poohed me, that germs or spores can exist in the cold vacuum of space for ages before meeting conditions that will cause them to spring into life and intelligence. But fantastic or not, it seems much more plausible to me than intelligence is a semi-divine property of matter than cannot be duplicated on any of the multitude of planets that constantly form and become fit for life in the immensities of the universe. It seems much more sacred and inexplicable than that haphazard theory of evolution. What do you think, Andrew?"

"To tell the truth, professor, my opinion can count for little as I know so little of biology. But I agree with you on one point: I, too, believe that rational intelligence as it exists in man is incapable of being reproduced mechanically by a mere combination of whatever the evolutionists conjure up as ideal conditions. On that basis alone I favor your theory, professor, as I favored it the first time I heard it."

● The young chemist spoke earnestly without insipid flattery. Truth always struck him as a virtue too little practiced.

"I'm glad to hear you say that, Andrew, not merely because you are agreeing with me, but because it indicates that you are still as broad-minded as you used to be, and as I hope you always will be. My boy, imagination—which is another name

for the highest attainment of intellect—is a possession that should be prized above all other things, material or spiritual. Imagination has been the key to golden treasures of the material, which is Science, and of the spiritual, which is Life in the highest sense of the word. Never, my young friend, allow anything to suppress or bind that quality. It exists in all of us in varying degrees, but unfortunately, it is looked upon as an evil more than a virtue."

As Professor Reinhardt sighed heavily as one who realizes a colossal blunder before his very eyes, but is powerless to remedy it, Boswell suddenly felt his perspectives of life change subtly. Education sunk in the scale of values imperceptibly; concrete life dropped several points; human nature took on a darkened aspect; and that free-running imagination of his that he had sometimes been ashamed of, soared into the sunlight. The young chemist drew in his breath convulsively several times as the professor bent over a cage to twiddle his finger at the white mice within. Professor Reinhardt and all his atmosphere of rebellious free-thinking were exerting a powerful influence on Boswell, uncovering within his mind unsuspected pools of unbound thought.

Then he bent over the cage with the professor, determined to make the most of the visit which he knew would be all too short to satisfy him. After a few minutes of examination of the various animals in their separate cages, commented upon now and then by the biologist, they stepped into the well-equipped laboratory. Familiar as this sort of scene was to Boswell, they stopped only long enough for the professor to point out several things engaging his labors at that time. Then they went in to dinner.

CHAPTER II

The Secret

● There was only one significant thing that came up during the dinner, to which both of them did ample justice. Boswell asked the professor how near he had come to obtaining indications of proof of his theory of spores.

"Well, Andrew," began Professor Reinhardt pushing himself a little ways away from the table, "I figured that the best way to approach the problem would be to duplicate those spores which would have to be impervious to all conditions of outer space. For five years I have worked at that angle, using the female germ-cell that grows to maturity upon fertilization, of guinea pigs. It perhaps seems idiotic to use the germ-cell of a non-intellectual creature, but there would have been insurmountable obstacles to my procuring human cells, as you can readily surmise, and anyway, the use of animal germs of life would give results analogous to those of human, provided only the former worked."

"And the result?" asked Boswell eagerly impatient.

"The result, Andrew, is the reason why you are here—and why those five other men are coming. To avoid repetition, and in keeping with my original plans, I beg to defer elucidating until those others are here."

With this, the conversation ran into lighter strain, while Boswell felt a fever of ecstatic anticipation grow within him to the bursting point. Professor Reinhardt seemed himself to grow nervous, extracting his watch betimes and biting his lips as they awaited the other guests.

Finally, just before two o'clock, the butler came in the drawing room to announce to his master that two gentlemen had arrived. The professor jumped up and met them at the door, wringing their hands, all three exchanging greetings. They were perfect strangers to Boswell, and as he stood up, the professor introduced them: Dr. Hugo Festus and James Goodwin, L.L.D.

To the newcomers' almost immediate inquiry as to the reason for the somewhat unexpected invitation, the biologist evaded the issue exactly as he had done with Boswell.

A short time later the fourth member arrived, a Melvin Gregory, Ph.D.

He, too, sat down with a resigned air after finding out nothing of the purpose of the conclave. Then the last two belated guests arrived, and Boswell was pleasantly surprised to recognize one of them as a former fellow student at Harvard, although a much older man.

"Thomas Taylor, M.S.—oh, I see you know each other," said the biologist.

The last man was John Callahan, Ph.D.

All greetings and introductions over with, and all seated in chairs, six pair of eyes turned on Professor Reinhardt by mutual reaction. All of them felt the mystery in the air, for the biologist was known to be no social fanatic, inviting people to his home for aimless and purposeless functions, but a gifted and somewhat eccentric scientist, bound up in his research. Professor Reinhardt, in turn, looked from one to another speculatively as if estimating their capacity to withstand shock—mental shock. Satisfied, he began to speak.

"Gentlemen, I have called you together for a definite purpose, as you may have guessed by now, and not merely to say 'Hello; how are you?' First of all I must say that the matter of choosing you six from amongst the multitudes of friends and acquaintances whom I know, took some thought for reasons that will bear out later. Before I go any further, I must emphasize that you are to hear me out with all patience and regard for my reputation as a scientist. If you feel yourselves skeptical of things I say as I go along, please be so good as to withhold condemnation at least until I have finished. Now . . . ."

He sat up straighter in his chair and swept a glance around the circle of men as if undecided how to broach the subject, further painting the anticipation that Boswell felt in the colors of the extraordinary.

"Five years ago, gentlemen, I announced my theory of the 'Spores of Intelligent Life' at the Institute, for which I was openly derided. From then on I sought to uphold that theory by undeniable proof. I took the fertilized germ-cells from female guinea pigs before those cells had begun to grow and attempted to preserve them in such a way that they would neither die nor decay from age. In other words, I tried to duplicate with the guinea pig life-cell what my theory attributes to the spores of intelligence."

As the professor paused, the six listeners shot guarded glances to one another, glances of surprise, interest, slight contempt, and skepticism. Boswell noticed with a sudden surge of anger that Dr. Festus had assumed an open look of lofty impatience, his lips half-curled in scorn.

Professor Reinhardt resumed: "In the course of the experiments I used, of course, hundreds of the life-cells, and gradually came to the point where their innate tendency to grow and decay was halted, suspended. But then they would die. I will not detail the countless steps I took to overcome this stumbling block. Suffice it to say that I finally gazed upon a life-cell immersed in non-nutritive paraffin oil that would remain unaltered for any length of time. Then came the tests to see if they would once again respond to conditions of life. I found that when they were transferred to rich culture media and bathed in oxygen, they resumed the functions of life without hesitation, *every one of them.*" He paused in the breathless silence and then continued. "But I met complete failure in the last and most important part of the experiments. Do what I would, these treated life-cells would promptly die when the temperature was lowered beyond a certain point, far from the low temperatures that obtain in outer space."

"Which was to be expected," said Dr. Festus emphatically. "That marks the downfall of your spore theory."

"I disagree with you," cried Professor Reinhardt quickly. "It simply indicates that present day science is not yet advanced to the point where such an astounding and miraculous step can be taken."

"You speak as if you credit the existence of your hypothetical spores to the handiwork of intelligence and not to Nature," said Dr. Festus with a contemptuous grunt.

"I do!" returned the biologist quietly

but firmly. "I said nothing of that when I presented my theory years ago—mainly, Dr. Festus, because I feared certain intellects would not stand the shock. But I say now that I verily believe the Spores of Intelligence are produced—manufactured, to be explicit—by intelligence itself and seeded throughout the universe so that the divine spark of intellect will never disappear."

"And you have called us together, professor," burst out Dr. Festus petulantly, "just to air your fantastic—may I say idiotic, inane, sir—ideas about 'Spores of Intelligence' to what you hoped would be a group of yes-men for the satisfaction of your own ego. Well, I, for one, will not . . . ."

● Professor Reinhardt had merely held up a hand, but something in the way he did it cut the excitable, skeptical Dr. Festus short as if a hand had clapped over his mouth.

"You do me injustice, Dr. Festus," said the biologist. "My purpose in calling you men together had nothing whatever to do with my theory or work on the spores, only that there are certain connections that you will soon comprehend. You remember I said that I *did* manage to suspend the life operations of those life-cells and at the same time prevent death from destroying them. Perhaps one of you gentlemen can sum that up in less words . . . ."

It was young Boswell, who had sat motionless as if hypnotized during the previous conversations, who supplied the answer: "Suspended animation!"

"Very good, Andrew," said the biologist with a nod in his direction.

Then he raised his voice. "Did you hear that, gentlemen? *Suspended animation!*"

"Well, what of it, granted it has been done," said Dr. Festus.

"Just this," began the biologist. "With the experience I had had in preserving the life-cells from death, I was able to produce a virus which, when injected into the blood stream of a live guinea pig or white mouse, would duplicate in it the condition of the life-cell—namely, suspended animation. To go on to a rapid finish, as I see that all you gentlemen are growing impatient, it has occurred to me that what works on a guinea pig, certainly ought to work on a human being, and"—he imperiously checked a flood of surprised comment from his listeners—"my reason in telling you all this, gentlemen, is to ask you, if it be your desire, to enter into a state of suspended animation with me . . . ."

But that was as far as Professor Reinhardt got before an avalanche of questions, denunciations, comments, and remarks drowned out his voice. The tumult continued until the biologist leaped to his feet, eyes blazing, and shouted for them to stop. The noise died suddenly. Then Dr. Festus burst out laughing in bitter scorn and derision.

"Just what is your proposition, Professor Reinhardt?" asked Callahan as the laugh died away and the biologist stood there a moment trying to control his anger at Dr. Festus' impolite manner of showing opposition.

"My friends," said the professor in brittle tones as if he expected a further display of ill manners, "I propose to enter the state of suspended animation for a period of from ten to twenty thousand years. I have asked you gentlemen to join me only by your own free will. I have taken care that each of you, although having important niches in the present age, is practically destitute of near relations—when I chose you out of my dozens of friends. Whether you accept or not is immaterial to me, except that your companionship would be desirable in that future time when I awaken."

"What would be our purpose?" asked Taylor.

"Purely personal," admitted the biologist. "We can in no way help present-day science by the act, nor can we, it seems logical to assume, do any good in that future we would reach. But the act in itself, although selfishly motivated, would carry a spark of martyrdom."

"What assurance have you that we would awaken at the right time? We

might remain that way forever, until the building tumbled down on us!" put in Callahan.

"How are you going to protect the body from mechanical harm all that time? In ten thousand years much can happen," came from Gregory.

"How can you know your virus is protective over such a long range of time, which is absolutely beyond experimental proof?" asked Goodwin.

Professor Reinhardt held up a hand. "Please, gentlemen, let me explain all that."

Dr. Festus was on his feet. He glowered at the biologist. "Do you insinuate that we are to risk our lives with an unproved virus compounded by a . . . . a . . . . madman, sir? I bid you good day, professor, and you, gentlemen."

Without a word, he strode out of the room and a moment later the front door banged, after the butler's soft voice and Dr. Festus' harsh one had mingled for a few words.

"Perhaps I should have realized . . . ." said the biologist softly as if to himself. Then he shook himself slightly and looked around. His eyes met those of Boswell. An electric current seemed to flow between them. The professor went on in sudden firm confidence.

"I will explain my plans further, gentlemen, and then leave you to form your decisions at your leisure and without influence from me.

"Briefly, I have had designed for me by a reputable concern a casket made of one of the toughest metals we know today—manganese-steel. My body, after the injection, will be placed therein, and the two equal halves will be thermite-welded together. The oxygen will be extracted from the air in the inside, and neon, an inert gas, will be substituted. You recall that I said the life-cells used in my experiments resumed life operations when bathed in oxygen and given nutriment. Exactly so will I be revived in the distant future—by the admission of ordinary air containing oxygen. You ask how can I know the awakening will come when I wish it? Simply in this way: I am going to have the sealed casket containing my body in suspended animation buried underground at a spot I have already picked out which is some fifty miles outside the limits of Boston. A friend of mine has calculated that in perhaps ten to twenty thousand years the city of Boston will have expanded to that distance. Accordingly, the people of that period, while making excavations that far out for a new building or subway or other structure, will come upon the metal casket. Surely, with the advancement that the human race will know in those many centuries, they will realize what it is and open it. The fresh air will revive me and my dream will come true—to see the world of the future.

"You ask how I know my virus is protective over that long period of time. Frankly, gentlemen, I don't. That is one of the chances I—and any who may choose to join me—will have to take. I can say this, however: over one year ago I injected a guinea pig and sealed it in a similar, though smaller container. I will break the seal in the presence of you gentlemen and you will see for yourself that it will revive and become a normal animal in a few minutes. I have repeated the experiment for my own satisfaction numerous times over shorter periods of time. Of course, one year is far from being ten thousand years, but—as I said—that is one of the chances I am willing to take.

"Then there is the chance that some upheaval might crush the casket, might grind it to a powder underground. I cannot predict that nor does it bother me. If I am destroyed, it will be a merciful death and death is inescapable under any circumstances. However, the casket is built to withstand terrific punishment, having walls four inches thick. It is braced internally with the strongest steel in such a way that it will resist a terrific crushing strength—only a major geological cataclysm, untold tons of rock and earth, will suffice to destroy its shape in any but a slight way.

"All in all, gentlemen, I should say that the chances of my achieving my aim are

more than even. Let us go down into the basement, now, where I will show you the casket that is ready to receive my body, and the guinea pig that has been in suspended animation for over a year."

● Silently, the five men arose and followed the portly figure of the famous biologist to the basement. All seemed to be thinking deeply, and the vast scope of the plan reflected on their faces in deep bewilderment. Only Boswell's face shone with more of exaltation than doubt.

"There, gentlemen, is the casket," pointed the professor. "Each half weighs two tons."

The men stared in fascination. Like the elongated half of an egg, the one shell lay flat on the cement floor, the other suspended from a chain and pulley system, dull gray in color and unburnished, fairly radiating its invincible strength to the five pairs of wondering eyes that saw it for the first time.

"Then if we choose to . . . . to . . . . accompany you, you will have a similar casket made for each of us?" queried Gregory.

"Yes, each one separately to more closely coincide with the contour of the particular body to be placed in each. The inside allowance must not be too great or slight movements of the caskets in ten thousand years or more would beat the body to a pulp, so that upon revival, that person would die from physical causes."

Boswell, who was just behind Gregory, felt a shudder pass through the man's body. The young chemist wondered why Reinhardt chose such abrupt words. It came to him that the professor, moved by the sudden departure of Dr. Festus, cared no longer whether the others accepted or not, disgusted that human nature could be so fearful and so unbelieving.

"And here, gentlemen," the biologist broke the silence, "is the animal that has lain in suspended animation for fourteen months. Notice that I have placed a lead seal on the air bent, the only one there is. Mr. Gregory, will you read the date stamped on the lead seal?"

Gregory took the metal ball from the professor—it was nothing more than a pair of Magdeburg Hemispheres—and turned the air vent under the light, reading the date. It was fourteen months and some days of the past.

"Now I will let in pure air," he said.

Eagerly the five men crowded around the bench whereon lay the still body of a guinea pig, the personification of seeming death. Suddenly a foot twitched bringing a sharp gasp from Gregory. From then on recovery was quick and the little animal rolled over on its feet and sniffed his way to a carrot that the professor suspended near him. Complacently, the animal chewed the vegetable, probably unaware that it had eaten last more than a year before.

Professor Reinhardt faced the five men in the drawing room again, a look of quiet triumph on his face.

"I have told you all relevant points, gentlemen. The decision rests with each of you individually. And now let us have a good, hot meal."

The meal started with ominous silence, as if the partakers were afraid of revealing their hidden thoughts and little fears and doubts, but as the warm food made its effects, the spirits of the company rose. By the end of the meal they were joking and laughing and conversing normally. By common unspoken consent, however, no mention was made of the biologist's proposition.

Once again seated and smoking, the question of how to legally leave their life came up, without stirring up scandal and investigation and untold trouble amongst the closer friends of those who should elect to leave that age. Goodwin, who knew most about such matters, showed that it would be legally possible to leave provided they made wills—if such were necessary—and also signed papers expressly stating that no one should be questioned in the disappearances, as they were perpetrated without criminal complication. It was also suggested that the burying would have to be done in secrecy so that fanatics, who would object to the wil-

ful "suicide," would be unable to find the caskets and dig them up and thus disrupt their plans.

Finally, at nine o'clock, Professor Reinhardt arose. "That will be all for the present, gentlemen. You must send me your answer by wire inside of three days from today—until midnight Wednesday. Upon receipt of any acceptance, I will immediately enter an order for a casket for that person—you will please leave with me tonight each of you a written record of your exact height and other body measurements. My butler will superintend the work. I have planned the leave-taking for approximately one month from today. I will arrange the exact date after knowing who chooses to accompany me."

The measurements were completed in a half hour and all left immediately except Boswell. When the door closed upon the last of them, he turned upon the biologist.

"You won't get a telegram from me, professor, because I here and now pledge myself to go with you," said the young chemist simply, the fire of daring youth in his eyes.

The biologist said nothing but gripped the younger man's hand in a way that expressed volumes, while his kindly eyes filmed a moment in tearless joy and pride —pride that at least one fellow human had the courage and imagination to tread the dangerous paths that lay before them.

CHAPTER III

Into the Unknown

● The world had suddenly changed, had been completely distorted to Andrew Boswell's mental perspectives. His work as a chemist became a dream, an empty ritual, too ephemeral to be taken seriously. Probably the head chemist at the laboratory was glad to receive his resignation that next Saturday, for certainly his young assistant had become moon-struck or had fallen in love or some such dire thing. Boswell found himself starting out of little reveries countless times in those few days that he still lived and moved in the age of his birth, wondering momentarily where he was and what he was doing. The most nebulous, and at the same time the brightest, parts of his imagination had already explored that future world to which he was going. Time and again in his sleep dreams and day dreams he found himself sitting up in his manganese-steel casket, the upper half away, gazing into the queer faces of posterity and hurling a maelstrom of eager questions at them while they looked at him in round-eyed wonder.

Friday he received a letter from Professor Reinhardt.

"—much to my surprise," it read in one part, "two others besides yourself have accepted—for I confess, I expected them to spurn the offer to a man. James Goodwin and John Callahan are the two. Both of them wired me Wednesday night, close to midnight, and I surmise from that that they fought the question out with themselves until the time limit drew so nigh that they had to come to a decision. I can just imagine them now, walking about in a daze, breaking out into cold sweat now and then as they realized suddenly to what they have consented. Only I think Goodwin won't be bothered so much—he has imagination, Andrew, although far less than you or I. Speaking of acceptance, you can see the motive behind Dr. Festus' angry departure, can't you, Andrew? He grasped the situation quicker than the others and decided it would be better to withdraw immediately under camouflage of anger and contempt, than to weakly refuse the offer later. In other words his immense personal pride was just a mite greater than his abominable fear of death. It was a mistake to ask him, but of course, I didn't know that before last Sunday."

Then in another part the letter said: "—I think it would be most convenient, Andrew, to resign your position as soon as possible, as long as it's inevitable, and come here and live with me. I can use you in the laboratory making up the virus of suspended animation and testing it several times to make sure it has been compounded correctly. Goodwin, who will

take care of all legal matters, will fix up everything in your case while you help me out. You can come any time you are ready. I will be expecting you."

Saturday Boswell went to the cotton concern for the last time, telling the head chemist that he had secured a position as assistant in the private researches of a scientist, and collecting his due wages as a matter of course. All his books he sent to the public library of Providence as a gift; many of his clothes he donated to the Red Cross, and the rest of his belongings he packed up and sent on ahead to Boston. That Saturday, a day of the sweet freshness of awakening spring, marked the last of the young chemist's connection with the twentieth century; when he arrived at Boston early Sunday, he was in a new world as far as he was concerned.

Professor Reinhardt greeted him warmly as a bosom friend; their common interest broke down all barriers of conventional reserve.

"My, you look all keyed-up, Andrew," said the biologist. "Perhaps I'd look that way too if I weren't so old and emotion-worn."

"I suppose it does show," agreed Boswell. "But, professor, the thought of what we are going to do has just swept everything else away—this life has become a dream. I only hope reality coincides somewhat with some of the things my mind has conjured up since last Sunday—mile high buildings, noiseless airships, a true government of the people, wonderful new advancements in free thought, and interplanetary connections."

The portly biologist nodded sympathetically. "My boy, I think for once you will find your imagination fallen short of reality, instead of beyond it, as in mundane things. What the next ten or twenty thousand years will bring, is past comprehension or prediction to us here and now. We shall know soon—if all works out as planned."

The professor had a tinge of pessimism in his voice but he brightened immediately. "Callahan, for unfathomable reasons, refused to come here sooner than one week before the—what shall we call it?—the departure, when I telephoned him long distance to New York. He insists on carrying on his work until the last. Goodwin is going to be quite busy, arranging for my and Callahan's wills, and the clearance papers for all of us. I am leaving the bulk of my money and the estate to a friend of mine, whom I have forbidden to come along because he is a family man with seven dear children. It would be sinful to tear him away from them and a loving wife. He is in the secret and looked positively wistful when I emphatically refused to consider him in the venture."

The biologist smiled a bit as he reviewed that incident. "I am dividing a fifth of my worldly possessions among Harvard College, my three servants, and my assistant in research, who helped develop the virus and whom you haven't met yet, by the way. The butler is going to pay off the men who will seal the caskets and bury us, and it will be as much a bribe to secrecy as payment—a bribe to keep them from revealing the burial place. And now let us go to the laboratory; I want to show you a few things."

"There's one thing I thought of, professor," said Boswell as they crossed the lawn. "I think, as a good precaution, the outer surfaces of the caskets should be plated with some corrosion-resistant metal—nickel, I would suggest. You know, manganese - steel, strong mechanically though it is, is chemically quite active. The action of small quantities of acids in the course of centuries might dangerously weaken and thin the walls, even eat through. I would suggest a plating of gold or platinum, only they are too expensive. Nickel, though, say a quarter-inch thick, would offer good protection and is much cheaper."

"I've gone you one better, Andrew," smiled the biologist. "I'm having the four caskets embedded in concrete. But your idea is still worth thinking about. The concrete might crack off in time to expose the surface of the metal. Yes, Andrew,

we'll have the caskets nickel plated."

● James Goodwin dropped in Tuesday with certain papers for both the professor and Boswell to sign. He assured Professor Reinhardt that the legal matters were being carried out in all possible secrecy so as to prevent any storm of disapproval from busybodies, visits from reporters, call-downs from "sane" people, (Professor Reinhardt called them sane-o-maniacs) and all such like importunities. Each of the persons who would be present at the finalé when the caskets were sealed and buried—the three welders, the trusted butler, the laboratory assistant, and the friend who was to inherit the estate—was to be given a signed and notarized paper absolving them from all possible legal complication should the snoopiness of the world break through the veils of secrecy.

Goodwin left again. A few days later came a letter from Callahan, stating that Dr. Festus, who knew him quite well, had attempted to dissuade him from his course upon learning he had accepted. Callahan also said that Dr. Festus seemed to imply that he thought the project the height of folly, and even that he might attempt to disrupt their plans. Professor Reinhardt became alarmed at this, unduly perhaps, and rushed to New York. He returned next day and informed Boswell that only after hours of arguing had he won a promise from the spoil-sport Dr. Festus to calm his violent opposition and let the others do as they wished. The biologist also visited Callahan to find that individual sadly shaken in his resolve by the dark hints of disaster that Dr. Festus had thrown at him in the attempt to save his friend from what he openly considered wilful suicide. But he had firmly shook hands with Reinhardt and assured him that he would go through with it.

To Boswell, all these fears were past comprehension. He looked forward to the event as a glorious adventure; never so much as a tremor of doubt or fear shook his confidence or resolve. Certain it was that he passed through the strain of the month before the departure with far less perturbation than Goodwin and Callahan, less perhaps even than the biologist, whose weight of years carried less of optimism than the buoyant, high-spirited younger man.

* * *

Mutely, the four adventurers climbed into the car. It was Sunday near midnight, a month after the meeting of those same four and three others when the project had first been announced. The butler acted as chauffeur on this occasion and drove the big car smoothly past the city limits and out into the quiet country-side. Not a word was spoken during the hour and a half it took to get to the burial place—words seemed unnecessary, inadequate under the circumstances to express feeling as these four moodily stared at the bright stars for what might be the last time in life—certainly for the last time in their present configuration and arrangement. The mooing of cows from a passing barn caused involuntary tremors to shake them, a symbol of departure of things they knew and understood. Callahan, particularly, seemed moved the most. He sat tight-lipped and pale, watching each passing pair of headlights with eager fascination, as if trying to crowd these last few minutes with the impressions of a world that would soon cease to exist for him. Goodwin tried to say once that the moon was exceptionally pretty, hanging like a golden sickle on the horizon, but the words came out hoarse and short, belying the speaker's mood. It was not the beauty that he saw, but the spectre of irrevocable change, transition that would engulf them. Possibly only pride withheld him, and also Callahan, from bursting out in hysterical pleas to release him from his promise and let him go back to a life that now seemed so dear and wonderful in its remoteness. Even the eager Boswell felt the mood pressing down upon his heart with an intangible but heavy hand.

The car stopped beside a natural grotto down in which could be seen the black mouth of a cave. They filed in separately, the biologist in the lead, stooping to avoid bumping their heads on the low roof. A

short passageway led them to a fairly large chamber lighted by several flickering candles, whose center floor was marred by the opening of a rectangular pit. The newcomers muttered subdued "hellos" to the two men who were there already, the laboratory assistant, at whose feet reposed a box, and the close friend to whom the biologist had bequeathed his personal belongings. With an unwilling fascination gripping them, the four who were to leave the world of that time stepped to the edge of the pit and looked down at the caskets.

Professor Reinhardt played a flashlight about as he spoke: "You notice the metal rack that holds the four caskets, two above two. They are welded to the frame so that we are assured of remaining together through the centuries that they will lie there. Only a major earth movement, which is extremely unlikely, can tear the frame asunder, separating us. On the surfaces of the four caskets have been acid-written the date and year of interment and a short message in English, so that the people who dig us up will know exactly what and from what period they are. Of course, as you know, inside the caskets with our bodies will be placed the thin aluminum plates with a complete and engraved record of this whole affair, so that even if . . . . ah . . . . we do not survive to talk to them, they will know all about us."

For a moment, the four stared silently at the shiny, nickeled caskets as the flashlight played over them. The upper halves were swung back onto the frame and held in place by strong chains and pulleys. Each of the lower halves was bedded with cotton, protected at the moment from dirt and dust by cloths.

● Boswell tore his eyes away from the pit and swung them about the cave. In one corner he distinguished a cement mixer, beside it piles of cement sacks and sand. In another corner were cylinders of gas for the welding and cans of thermite. Both thermite and gas welding were to be used to insure that the caskets would be sealed properly. A large vacuum pump and fittings lay ready for use against one wall.

Professor Reinhardt, after engaging in a whispered conversation with the assistant, addressed the three men again.

"Well, my fellow time-travellers—for that's what we'll be, in a way—there is nothing more to do except prepare for the last act. We will take off all our clothes and clamber down to our separate caskets. Boswell's and mine are the lower two. After we are settled comfortably on the cotton, my former assistant will inject the virus into our arms. It will take effect in about three minutes and will be nothing more troublesome than falling asleep. Then these two men will pack cotton all around our bodies. That cotton, by the way, has been treated so that all potential decaying bacteria have been destroyed. I am not sure, but I think the cotton will last without deterioration. The three men who will lower the lids will be here in an hour—I thought it best not to have them here during the actual process of injection—and they will weld the halves firmly together and pour the cement to the level of the floor. On the top surface of the wet cement, my friend will trace a message for the finders of the caskets to read, if English is still used by them. After all the paraphernalia has been cleared out, the cave entrance will be dynamited to seal us off completely from the outer world.

"My friends," continued Professor Reinhardt solemnly, "when next we open our eyes, we will be in 12,000 A.D. or later. God grant that we open our eyes again."

Callahan gasped audibly and then flushed in embarrassment. The flush was instantly replaced by the white hue of a corpse; his eyes were wide in the strong emotion he felt. Goodwin seemed calm, but his skin too had paled to a semblance of death itself. Perhaps not until then had the full realization of the step they were taking come upon them—the chance they were taking with their lives. Boswell, although subdued by the graveyard-like

scene, alone of them all retained a normal color. His eyes flashed like diamonds in the candle light. Professor Reinhardt was white of skin, but there shone from his burning eyes the fires of hope and determination. He saw not death but a new life. His eyes met those of Boswell, and almost like a living force there passed exultation and the undying spirit of adventure between them. The two men who were to send them to the beyond appeared horribly depressed, almost as though they felt they were the participants in some evil rite which was a blasphemy in the eyes of Heaven.

Goodwin cast a sidelong glance at Boswell. A trace of his normal color returned and he stirred from the trance that had gripped them all for many long moments, squaring his shoulders.

"All right, professor," he said firmly, "I'm ready."

Callahan started as from a deep sleep and then muttered weakly, "I too."

Boswell signified readiness by beginning to remove his clothes. In a few minutes they stood naked beside the pit. The two watchers stepped up and shook hands all around, muttering strange and broken sentences that no one heard or paid any attention to. Then the four naked men faced each other and shook hands with nervous grips. Callahan's lip trembled a bit, but when he looked full into the inspiring face of young Boswell, he drew in his breath sharply and pursed his lips tightly together.

"*Au revoir,* my friends and companions," said the biologist softly with admirable control of his voice under the circumstances. "We are entrusting ourselves to the care of Mother Earth—we have nothing to fear."

He turned and jumped to the flat top of the framework, which was five feet below level. The two clothed men stood at the edge and shone their flashlights below. With a bit of puffing, the biologist clambered down the metal bars to the damp, but clean, cement foundation upon which the assembly rested. He carefully pulled away the cloth, covering the cotton bedding, and settled himself at full length. He waved an arm and the lights were switched to the other side where Boswell clambered down and fitted his body into the soft bed of cotton.

He watched every little detailed move the other two made as they clambered into their caskets—as much as he could see between the metal parts of the frame. Then the laboratory assistant came down to the bottom and quickly inoculated them with a hypodermic needle. There was a momentary shuffling of feet above them, a few faint whispers, and then utter silence.

As the virus took effect, Boswell felt a delightful languor steal over him. Time suddenly ceased to exist and the outlines of the things above and around him faded into a blur. He felt his body floating on an endless sea of clouds, his Heavens a globe of corruscating color. There seemed to be a weird pain—a sad and sweet ache—stealing through every fiber of his young body. The colors around him began to sweep majestically across his vision, moving, somehow, with the mighty ponderance of ages and ages of time in their ripples and convolutions. It seemed a cosmic book were being opened and read, page by page, written in a language of colors to which no one had the key. The ache increased in intensity but it brought no desire to cry out in pain; it was a pleasing ache that seemed to hold a promise of reward in the future to which he was going. In a surge of rational thought, he attempted to think of what had gone before and found that he had completely forgotten that which was past. Nor could he divine where he was or what he was doing; all he could see and was conscious of was the vibrating ache all over his body and the grand spectacle of color before his eyes. He was like a man going down a swift—supernaturally swift—river in a boat, unable to see the dock for distance and unable to distinguish his surroundings for swiftness.

Then a blanket of ebon enfolded the colors and the ache became the unfelt emptiness of a void.

CHAPTER IV

The Awakening

Out of the ebon void came a soft ray of light, so soft that it did not seem to be there at times. Like soft evening shadows a dim remembrance came to Boswell—a remembrance of undefinable things that tore his heart like a plaintive melody. In the chaos of awakening consciousness, he knew not where to begin grasping at straws of things that would end a dream—the dream that had infested his slumbers for all eternity, it seemed. As a disembodied spirit might wander about looking for a haven, his numbed brain probed here and there, trying to bring out vague things that he felt should be, but which remained beyond his mental grasp. He was looking for an end to a dream—a fantasy that chilled his heart by its immense duration—but his brain reeled in thick clouds of more dream-stuff. He summoned all his powers of thought and fluttered his eyelids. Centuries rolled by his eyes, ages of time that had forgotten to move, had clogged like mud on a wheel.

But that was the Awakening. He opened his eyes wide and dim vision came to organs that had almost forgotten their purpose. Soft blue light bathed them and strengthened them. At first Boswell saw only a blur, a blending of glowing colors, which dropped to his eyes as lightly as a thistle. In a pleasing languor, he closed them again and his mind flowed with currents that had been dormant for eons. Like a flood came the tide of memory. Waxing stronger second by second, his thoughts filed in regular order until the empty void of his drugged mind bridged the last gap.

When next he opened his eyes, he knew what he was looking for. He had been put into suspended animation in the twentieth century; he was opening them now in some future age. The first thing he saw was a human face. But it was a face that reflected distinct departure from faces he had known in his age. It was kindly, almost sad, lined with age or wisdom—he could not know which.

That was all Boswell waited to see. Next moment he had propped himself up on elbows, eyes shining in eagerness. With the clouds of the first awakening gone, he felt as if he had just lain down a few moments before, as a sound sleeper finds it hard to credit that many hours have passed when he awakes in the morning. But a hasty glance around quickly dispelled any lingering doubt he might have that the virus had failed to do its work.

First of all, Boswell saw that he was not in the underground cave near Boston; he was in an immense chamber that brought a broken exclamation to his lips in its total foreignness of decoration from what he knew. Then the three humans that watched his every move with quick, excited eyes—they by no manner of mental flexibility could belong to the twentieth century. In fact, for a brief panicky moment, Boswell wondered if they *were* humans, so amazingly different were they. But he realized that they were immediately after, although altered in several astounding ways.

Boswell ran his eyes over the nearest figure, still propped on his elbows. He saw a dwarfed body with broad hips and thin, short legs—not deformed to the standards he knew, but smaller and weaker-looking. Also the arms were thin but extraordinarily long and terminated by a hand of astonishingly long fingers. But the head brought a muffled gasp from Boswell. From a normal-sized face tapered a bulky cranium that seemed ready to burst from internal pressure. The instant impression of vast intelligence, betokened by that bulging, hairless skull, struck Boswell like a blow in the face. He suddenly felt himself dwindle mentally to insignificance before the intellect that fairly poured out of the deep-set eyes fastened on him. He caught again an indefinable, intangible look of great, deep sadness, not only in one, but all three faces.

But the exuberance and patience of Boswell's youth had reached its limit. He leaped joyfully from his metal bed to the

floor, and then sat on the edge of the casket, overcome by an intense vertigo. It passed as quickly as it had come and he rose to his feet.

Facing the three figures, who had not changed expression a whit, he noticed suddenly that they were stark naked. This reminded him of his own predicament and he flushed quite naturally, for one of the figures before him was unmistakably female. Then it flashed on him that there could be no similar embarrassment or false modesty in them, for assuredly, if they were naked before each other, it must signify that it was a universal practice of the time.

Eased of this troublesome detail, he essayed to speak. A fit of dry coughs had to be conquered before he could bring out the words.

"Hello," he said and then promptly chided himself for the inane word.

"Greetings, people of the future," he resumed with a firmer voice, thrilling through and through that he was the first to greet them. "We are from the year 1930 A.D. What year is this?"

He wondered even as he spoke whether the English language had survived that long or been replaced centuries before by some more efficient tongue. He hoped that in that case, English had been preserved as a dead but still known language so that they could converse together.

But his hopes were dashed. The foremost figure swung that bulbous head of his from side to side in a gesture that had apparently survived all change. A slight smile appeared on his lips. Then the three of them began conversing amongst themselves in a style of speech that Boswell knew was of a date never to be confounded with the twentieth century.

The young man took the opportunity to see what had been done with the other caskets. He saw the top half of his casket lying flat on the floor nearby. Then he looked up to the casket above his, which would be Callahan's.

A hoarse cry burst from his lips, causing the three talking together to look at him. But Boswell became oblivious of them as his unwilling brain interpreted what his eyes saw. The casket on a level with his head had an open seam that was large enough for him to put his arm through. Some crushing force, it seemed, had struck the casket from the top and split open the weld. Furthermore, every vestige of nickel plating was gone—as well on his own as on the upper casket—and none of the original cement could be seen. The framework, Boswell saw, as he feverishly looked closely, was bent and twisted and each part was far thinner than it had been; some of the crossbars were entirely absent.

● Slowly the fact burned into his brain that John Callahan, poor soul, had died—perhaps ages before. With another wild cry, Boswell ran around to the other side, hardly daring to look for fear he would see similarly damaged caskets. His eyes encountered Goodwin's casket first. It seemed all right; dented, unplated, uneven, but seemingly intact. Then Boswell closed his eyes and fought back a desire to scream. He had seen a little hole at the back end, tapered to a funnel-mouth, such as might have been caused by the action of a biting acid. Goodwin, too, was dead!

Then Boswell, swimming up from a hell of mental torment, felt a light touch on his arm. One of the men was standing beside him, an understanding look in his eyes. Then Boswell saw him touch the last casket, Reinhardt's, and nod his head vigorously. The young man from the past breathed in vast relief. He was not stranded alone in this world of the future.

He felt the touch on his bare arm again. It was more than a touch; the man had grasped his arm gently by the wrist and was tugging for him to move. Boswell obediently followed him. He was led to the wall opposite and the bulbous-headed man pointed to several metal rings. At Boswell's puzzled frown, the man flattened himself against the wall and held firmly to two of the rings. Boswell followed suit, completely bewildered.

But the next moment he understood. He

suddenly felt an extreme lightness and an unlucky movement of his foot shot his body off the floor so that only his instinctive clutch on the rings kept him from shooting away like a bullet. His quick mind grasped the situation in a trice. They had somehow removed all the force of gravity from the room. Any slight movement would propel him about like a thistle; the rings had become a necessity.

He watched in fascination the opening of Reinhardt's casket. First one of the other large-headed humans came floating from the other side of the bizarre room with a bulky box in his hand, held by a little ringlet. He grasped the bars of the frame and pulled himself down to the casket. From an opening in the box he extracted a slender needle attached to a metal handle. Starting from one point he ran the needle along the welded seam all around the casket, using one hand to propel his body.

Nothing apparent happened, but Boswell could see a thin line of separation where the weld had been. A delicate plunge with the needle into the top surface opened a tiny hole into the interior. With a gentle flip of his hand, the one who had cut the seam raised the lid away from the bottom section which was an integral part of the frame. Lightly as a feather, the lid that had weighed two tons but a moment before—or some similar amount—came away and floated to the floor, pushed there by a guiding hand. The man with the box and needle floated to the other side and a moment later, gravity came back with a rush.

With a cry of joy, Boswell ran to the casket and looked at the death-like figure lying on peculiarly crinkled cotton. A cold hand grasped his heart at the white pallor of the skin and the absence of signs of life. Was Professor Reinhardt dead?

But as Boswell watched, he saw a faint tinge of color sweep into the still face, increasing rapidly to a normal pink. Breathlessly the young man watched for the full awakening, suddenly cognizant of the fact that more than anything else right then, he wanted his friend to come to life. He felt a great need for someone to talk to, some one he could understand, who shared his range of thought and desire. He wanted a companion with whom he could stand shoulder to shoulder while fearfully investigating the wonders of this alien time whose first few impressions had already dizzied his understanding. Not that he feared his rescuers—they were obviously friendly and well intentioned—but he needed, yearned for, company of his own kind.

For several minutes the professor's chest heaved convulsively; his eyes remained closed. Boswell waited patiently; he realized that his companion was going through the same awakening process he had before him—the brain striving to fill in the enormous gaps of clogged time, trying to bridge a wide chasm of things forgotten in ages of unfilled existence. Then the eyelids fluttered; the awakening had come. Several times they closed and opened, but each time there was less of bewilderment, more of understanding, in the eyes. Finally Professor Reinhardt stirred and raised an arm slowly.

"Professor!" cried Boswell, "Professor Reinhardt! It's I, Andrew Boswell. Are you all right?"

"Quite all right," assured the biologist in a weak voice. "Help me up, Andrew."

With the younger man's help, the professor got up from his age-long bed and sat on its edge, feet on the floor. He looked around with that same eager wonder that Boswell had some time before. Then he turned his beaming brown eyes on his young companion.

"Andrew, my boy!" he cried with undisguised exultation, "We've succeeded! We've bridged time! Ah, my young friend . . . ."

He stopped in the excess of emotion; silently they shook hands.

"Where are Callahan and Goodwin? Haven't they opened—Andrew, what's the matter? You are pale . . . . you . . . ."

Professor Reinhardt followed Boswell's pointing finger and saw the hole that had

destroyed the vacuum in Goodwin's casket.

"Callahan too?" asked the biologist softly.

Boswell nodded sadly.

Professor Reinhardt bowed his head. "It seems that our toll to cross the bridge of time had to be paid with two human lives. May they gain their just reward in the unknown world beyond death."

After a few moments of silence in honor of the martyrs, the biologist broke the spell: "Are we all alone, Andrew?"

After a glance around, Boswell said puzzled: "Yes, but it's strange. They were here just a few minutes ago—two men and a woman."

"What did they look like?" asked the biologist eagerly.

Thereupon Boswell described them as best he could and also told everything that had occurred after his own awakening.

"I wonder if we're still in Boston, or what corresponds to Boston," commented the professor. "But that's a useless query at present."

A sharp exclamation burst from his lips as he looked closely for the first time at the caskets and the frame that had held them together.

"Good Lord, Andrew! Look at our caskets—how worn and corroded they are. The nickel plating . . . . why, every bit of it is gone! And look at those dents here in front—like a shower of ton-size rocks had struck it. And the framework . . . . it's unbelievable. Some of the struts are mere broomsticks."

"Not only that, professor," added Boswell, "but if you look at the whole thing from the end where our feet were, you will see that the whole framework, as a unit, is sloping toward what was my side. It seems that some gigantic weight or force struck a blow on that side and twisted the whole framework. Only its supreme toughness must have kept it from snapping in the middle. I should judge that great weight or force struck squarely on . . . . on Callahan's casket, because it's his that has the split seam."

● Together they walked around the framework and viewed with many comments the terrific punishment that it had seemingly gone through.

Professor Reinhardt frowned in perplexity. "Ordinary earth movements or convolutions couldn't have done all that, Andrew. By some unfortunate circumstance, we must have been buried at a place that suddenly became the center of some titanic cataclysm of nature. I am afraid"—he shook his head sadly—"that the Boston we knew, Andrew, was wiped off the face of the earth. If there is any city now on that site, it must be a totally new one—like the new Chicago after the fire of 1871."

The two men looked at each other suddenly in mutual wonder. When the professor had said "1871," the same thought sprang up in both their minds.

"I wonder," spoke the biologist for the both of them, "what year *this* is, and just how old we are and where we are and what we'll see outside and what sort of building this is and . . . . oh, a million things. You know, Andrew . . . . this is the greatest adventure in human history—that is, in our history. Here we are thousands of years in the future, able to witness at first hand the progress, for I would call this progress"—he swept an arm around the room which was filled with things of which they knew nothing—"of the human race."

The biologist's face beamed with the pride and excitement of that type of nature known as "pioneer." In the exuberance of feeling, he drew himself to full height and drummed his chest—an atavistic gesture that *genus homo* inherits from his dim, ape-like ancestry. He dropped his arms slowly, surprise in his face.

"Have you noticed, Andrew," he asked, "or is it my imagination, that our bodies are lighter?—that it seems as if gravity is less than what we are accustomed to?"

"Yes," agreed Boswell eagerly, "and not only that. It feels to me that this air is thinner or is different in some way from the air we breathed in the twentieth century. Do you notice that?"

"I do, Andrew," returned the professor. "Not only thinner, but cooler. This room is decidedly cold. I suppose that's because we are naked and feel it more than we would clothed. I wonder just what . . . ."

He stopped as a section of the wall of the room opposite them glowed suddenly red. The next moment a figure materialized and the wall became blank.

"That's one of the same men that was here before," said Boswell excitedly as the bulbous-headed figure, without seeming to notice them, looked around. After a cursory examination of the caskets and framework, the wall became glowing again, and the creature disappeared.

The two men from the past looked at each other in bewilderment.

"Good Heavens, it's impossible!" gasped the professor.

Boswell looked at his companion in surprise. "You mean how he comes in and out through a wall?"

"No, not that," replied the professor with a shake of his head. "After all, this is the future and we must not be surprised at anything that occurs. But, Andrew,"—the biologist looked at him with strangely disturbed eyes—"that man . . . . that creature himself . . . ."

"What do you mean?" cried Boswell perplexed. "You are not surprised that the people of this age are different than we. That's inevitable, I should think."

"Quite," accorded the biologist. "But I didn't realize from your description . . . ."

He broke off and continued more calmly. "As a chemist, Boswell, of course it wouldn't be apparent to you what has hit me like a blow in the face when I saw that . . . . that person. Andrew, if you've read any of the early history of mankind on earth before the rise of civilization, you will remember the reference to the so-called Neanderthal Man. He was of the *genus homo*, but of a different species than *sapiens*. The point I am driving at is that though this species of the *genus homo* lived and thrived for at least two hundred thousand years, very little change came over it. The earliest sub-men of that species were not much different from the latest, in physical form, although they went through a variety of changed conditions of every sort. In other words, Nature is very slow to change."

Boswell caught an inkling of what his companion implied. "Go on, professor," he whispered with a rapidly beating heart.

"Now this man we have just seen, if he is typical of his race at present, could not in any way have been evolved from our race in as short a period of time as ten thousand years, or even twenty thousand years . . . . or even, I doubt, in *one hundred thousand years!*"

"That means, professor . . . . you mean that . . . ."

"Simply this, Andrew," said the professor in a low, tense voice. "That unless these people are from another planet, we have somehow awakened at least, I should say, not twenty thousand years in the future, but perhaps three or four hundred thousand years! Because, Andrew, they are obviously no longer of the species *sapiens*, although they may be of the *genus homo!*"

Boswell stood stunned a moment. Three or four hundred thousand years! Was it possible? Even his young and powerful imagination quailed before that searing possibility. Then he laughed weakly.

"You said before we must not be surprised at anything, professor. Even back in the twentieth century you told me that. Under the circumstances, as long as we're here safe and sound, what does it matter if it's ten years or a million?"

"You're right, my young friend," said the biologist wiping a bit of moisture off his brow. "We're here and we'll make the most of it."

They sat on the edge of a casket for a moment, thinking deeply, adjusting themselves to the new concept, the new realm that would soon unfold to their eager, undaunted intellects.

When Boswell turned to speak to his companion some time later, he saw that the professor's face was pale. Even as he watched, a glassy green complexion replaced the white.

"Professor!" shouted the younger man, shaking him by the shoulders, "What is the matter?"

"I don't know," muttered the biologist thickly. "I feel very bad in my stomach .... must be this air .... or the after-effect of the virus."

He suddenly began to shiver violently, his whole body quivering in the chill that gripped him. But young Boswell was unable to administer to him, for he too suddenly felt extremely sick. Out of blurring eyes he saw the biologist sink to the floor unconscious. He made a futile effort to control himself, but he felt himself in the throes of a most energetic shivering that laid him prostrate beside the older man.

He managed to shout once weakly before all became black, and he thought he caught out of the corner of his eye a reddening of a part of the wall that would signify the entrance of their rescuers. Then he relaxed completely into a coma.

(How long have the two men of the past been asleep? Don't miss next month's thrilling instalment.)

EDMOND HAMILTON and DAVID H. KELLER, M. D.

—two of the recognised top-notchers in science-fiction for many years are regular contributors to WONDER STORIES, and we take pleasure in announcing five new stories by these leaders to be published in the next few issues. From Edmond Hamilton we have bought

THE TRUTH GAS and MASTER OF THE GENES

and Dr. Keller, the favorite of thousands of science-fiction enthusiasts, has honored us with

THE LIVING MACHINE
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Of course, these stories are strictly within our new policy, presenting many original, refreshingly new, and thought-provoking ideas and scientific theories. No hack-work here.

W. Varick Nevins III, who has given you several short-shorts that would do credit to O. Henry, will soon reappear with "The Emotion Meter." This story, like his previous contributions, has a really surprising ending. Laurence Manning, an old favorite, will present "The Moth Message."

Other tales, the cream of the science-fiction crop, to appear soon are

THE BLACK RIVER by John M. Corbett
THE PRENATAL PLAGIARISM by Mortimer Weisinger
THE CELESTIAL VISITOR by Lilith Lorraine
THE TIME TRAGEDY by Raymond A. Palmer
SLEEP SCOURGE by Henry J. Kostkos

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(Illustration by Winter)

He suddenly jerked up a chair and swung it at me with terrible force.

THE CONTROL DRUG

By BENSON HERBERT

● Our self-control helps us to suppress our strongest emotions so that we may remain above the beast and call ourselves civilized cultured beings. People with very little of this quality do rash things, and some get into serious trouble.

Suppose that we lacked all control over ourselves whatever—what would be the result? Our present author, who is not unfamiliar to you, attempts to answer this question. He pictures a condition under which men's slightest desires, whether good or bad, become strong determinations.

● Robert Manne was my best friend. He was a research chemist working for a firm in Birmingham and we used to lunch together frequently at a little restaurant on New Street, near the Swine Market. He was a native of County Tipperary, Ireland, and his face was very red and full, his cheeks rather fat. He was pathetically fond of trivial jokes.

Often we used to lunch also with three or four others; we had all been together at the University at Edgbaston.

There were Parry and Robins, who lived in a boarding house in King's Norton, and Johnston, from Rubery. And, more occasionally, a Mr. Swithendale, who, as far as I can remember, lived on his own in Balsall Heath. All of these are dead now, and I have no one I can regard as an intimate friend.

One evening, Mr. Manne and I had booked our seats at one of the city theaters and I called at his rooms at seven o'clock to see if he were ready.

I walked in at the open front door without knocking and found him brushing his hair.

"Sha'n't be a second," he said, and went to pull on his overcoat. I saw him take out a glass-stoppered bottle from his overcoat pocket and put it on the mantelpiece. In the bottle there was possibly a quarter-pound of yellow flaky crystals.

"What's that?" I asked idly.

"Oh, that. That's rather remarkable stuff. It's one of the iodobenzaldehyde dyes, with a little bit of xenon compounded with it. From what I know of it, it should have pronounced tonic effects taken internally, but I haven't been able to get it in a stable form yet."

"Xenon!" I said, "but isn't that an inert element?"

"Yes. That's what makes it interesting. It's one of those border-line cases. I'm not sure whether it's an actual compound or a subtle physical mixture.

"That reminds me, I hadn't better leave it on the mantelpiece over the fire. It's very unstable and liable to break down if it gets warm."

"Break down?"

"Explode. And you certainly get some queer effects when it does go off."

"What effects?"

"Well—I'll show you, if you like. It won't take a minute."

"Go on then. We've got ten minutes to spare yet."

Manne took one of the crystals out of the bottle, put it on a plate, and crushed it with the handle of a knife. Then he mixed a drop or two of water with it and finally placed a small portion on the warm grate of the fire.

"You'd better stand back a little," he said.

As soon as the stuff dried, it detonated with a slight report. Brilliant white sparks shot out of it as if it were an electric welder.

I laughed. "Very pretty!"

Then he corked the bottle and put it

away in a cool cupboard and we went off to the theater.

The next day, I did not see him at lunch, but in the evening, I passed him in the street.

"Well, have you got that stuff stable yet?" I asked jocularly.

"Yes," he replied, to my surprise. "I hit upon the right method this morning. It's working out fine."

For some reason or other, we did not lunch together until another three days had passed. When I entered the restaurant, he was already at the table, alone. He seemed to be unusually excited and even exultant.

"What's the matter with you?" I asked, sitting opposite him. "You look as though you'd had a raise."

"No such luck. No, it's something much more important and significant than that." He smiled involuntarily as he spoke.

"Then it must be very important indeed," I said.

● After we had finished lunch, he told me about it without any further questioning on my part.

"You remember that stuff I showed you the other day?"

"Certainly."

"Well, it's proved to be something far bigger than I thought."

He drank his coffee as if it were the best wine.

"If I said that it's the best tonic that's ever been discovered, I'd be putting it mildly. No, I'd be telling a lie. Man, it's tremendous. It——

"The day before yesterday, I swallowed a tiny portion of it with a glass of water. It's very dangerous stuff, you know. The maximum safe dose is so small that you can hardly see it. Well, I took about a twentieth of the maximum, to be on the safe side. Hardly expected anything to happen with such a small amount. Didn't even know if the stuff was assimilable, though I had a good idea.

"And then— the effect was entirely novel, to say the least. Never knew anything like it before. About half an hour after, I got a tremendous kick. Tonic! Elixir! Yes, I felt what I imagine a god must feel. Divine. How can I say it? My soul-stuff seemed to be free from my gross material body. I was light, exuberant."

Manne picked up a biscuit but his fingers were so trembling with emotion that he dropped it again.

" 'God,' I said to myself, 'this must be like what a man experiences when he dies.' Then I had a moment of doubt. *Was* I dead?—Yes, it was as strong as all that. I actually jammed a needle halfway into my thumb to make sure. Look.

"The blood convinced me that I was still alive—not that I cared in the least. All troubles and worries, depressions and pessimisms, had vanished. I hardly felt the pain in my thumb and I wouldn't have minded if I had. I had transcended all earthly feelings. Now that I come to think of it, I've only once approached such a sensation before, and then only remotely. That was the first time I heard the Venusberg music."

There was a peculiar earnest quality in his voice which forced my attention so much that I let my coffee get cold.

"And then, hardly ten minutes later, the exultation began to die down and soon I felt normal again. But it seems to recur in spasms, getting less and less each time.

"God, what an experience!

"No bad after-effects at all, except that it tends to make your eyes water. Of course, the thing needs careful investigation over several weeks."

"And if it's a success—you'll be made."

"Once it's known, it'll sell like roasted chestnuts. Heaven on tap! A race of angels!"

"The Church will object. Instead of sinners getting converted, they'll buy a pint of paradise at the chemist's."

Manne suddenly became grave. He looked almost frightened.

"Tom," he said, "you know, it's a *big thing.*"

● The next day or so, my mind was filled with the commercial possibilities of Manne's discovery. The scope seemed to be immense. Who wouldn't buy a paradise pill (as I named the stuff), the only drawback being watery eyes? Anyone with anything would buy it, unless my friend was exaggerating, and I had always known him to hold cautious and reserved opinions.

That week-end—can I write any further? I am shuddering at this moment. I am half inclined to give it up.

That week-end, we had a sort of party at Manne's house.

Every year at this time, we always had supper together; the reason was that two of us had our birthdays on that same day: Parry and Johnston. Manne's rooms were the handiest because they were nearest to the city center, and also because they were large and pleasant.

I arrived at Manne's place quite early. I had paused a moment in the hallway to light a cigarette, when I heard some one laughing—laughing very loud and long. It was no ordinary laugh. It was intolerably infectious. In a minute or two—it was a long laugh—I found myself chuckling.

Then suddenly the laughter stopped and I walked in, puffing my cigarette.

"What's the joke?" I asked, but Manne just looked at me without saying a word. He seemed quite normal then, I might say.

It wasn't polite to press him to explain why he was laughing. I forgot it and sat down.

Shortly afterwards, the others arrived and we ate supper without delay.

Manne was unusually merry that evening. His conversation was a constant stream of wit. I had never known him to be so boisterous. He even shouted at the top of his voice occasionally. We could not resist him, and soon the house was ringing with merriment.

After supper, he went into the kitchen and I could hear him talking to the maid. Then suddenly I was extremely startled to hear a most violent and shocking volley of abuse. I could hardly believe my ears. No one else appeared to have heard anything, however, and a moment later he came back into the room looking quite as usual.

We talked for a few minutes and then the maid brought in some coffee on a tray. I saw that she was blushing.

We had drunk half of our coffee when Manne told us such a humorous joke that Swithendale and I spilt the remainder. Manne offered to get some more made, but we said that it didn't matter. The incident made us laugh the more, and we were still laughing when the maid came in to wipe it up.

After a very enjoyable evening, we left and proceeded to our various homes.

Tragedy Upon Tragedy

● The next morning I was walking along New Street in the direction of my office when I saw a large crowd standing in the roadway at the point where Needless Alley runs into New Street. When I came up to the crowd, I found them watching some ambulance men putting someone on a stretcher into their van.

"What happened?" I asked a man next to me.

"Run over," he replied. "He ran in front of a bus; on purpose, so I heard."

I have no taste for street accidents, so I did not loiter long, but went on to my office.

At one o'clock, I remembered that I had arranged to meet Mr. Robins at a restaurant. When I got there, he was already lunching. I was just walking up to the table when an absurd thing happened. On the edge of his table there was, I think, a plate of treacle pudding; he raised his arm to greet me, and in doing so, his elbow knocked the plate on to the floor.

He looked down at the débris for a moment, and then, to my amazement, he rose to his feet and staggered toward the exit, sobbing and crying like a child. I was so astonished that I could not move until he had passed out of the restaurant;

and when I tried to follow him, he was quite lost in the swarms of pedestrians and traffic.

I did not know what to do. After walking around for a few minutes, I went back to the restaurant and paid his bill. My head whirling with anxiety and puzzlement, I had some lunch and then returned to the office where I spent the remainder of the afternoon till a quarter to five.

Before finishing for the day, I went down to the street to buy the *Birmingham Mail*, and then came back to the office to glance through the paper.

On the first page I saw the headline:

BIRMINGHAM MAN'S SUICIDE

Lawyer deliberately throws himself under bus in New Street

This is what I saw this morning, I thought to myself, and read on:

"At 9.30 this morning, at the junction of Needless Alley, in full view of hundreds of pedestrians, a man was seen to jump . . . ."

My eye ran on.

" . . . . his name was ascertained to be Mr. J. B. Parry, a lawyer. . . ."

The name struck me like a blow. *Parry!* I could not believe it. Parry dead! And I had had supper with him last night. I gripped the paper and read on. It gave his address. I could no longer doubt now.

For perhaps ten minutes, I sat there without moving.

Then I walked unsteadily down the stairs and out to the street.

I was waiting for a tram when, for some reason, I remembered my anxiety about Mr. Robins, and I wondered where he had gone after leaving the restaurant in such a peculiar state. I suddenly decided to take a King's Norton tram and enquire at his boarding house.

I arrived there in a few minutes and asked the landlady if Mr. Robins was in.

"Er—no," she said, with a curious expression, and hesitated.

"I'm a friend of his," I said. "Will you tell him that I called?"

"As a matter of fact," she said slowly, "Mr. Robins has had to be taken away—to an asylum."

This startling statement so confounded my already benumbed mind that I turned and walked away without a word.

I hardly knew what I was doing.

I began to feel an urgent need to meet and confide in a friend. I decided to go on to Rubery to see Johnston. I felt that I had to see someone I knew. The long tram journey seemed endless. I could not think connectedly.

When I arrived there, I had to encounter another terrible shock, much worse than the other two. There was a commotion about the house, and there were no less than five policemen standing there. I stood looking at them amazedly.

At last, I ventured to approach one of them.

"What's all this about?" I asked. At first, he would not answer at all. He asked me my name and what right I had to enquire and everything about me; but my mind was so full of Parry and Robins that I had difficulty in answering him clearly, which made him suspicious.

At last, he spoke impatiently. "All right, all right. If you must know, Mr. Johnston's going to be brought up on a charge of murdering a servant."

I swayed and he caught me by the arm. I will not try to describe what I felt. I found it impossible to stay any longer. I rushed home in a fever of tumult and flung myself on a bed and tried to think. But my faculties seemed lost; my mind was a blank.

And then, you know, my eyes began to water.

The Terrible Drug

● For many hours I lay awake there and I do not know whether I ever went to sleep. About dawn, I think, I was awakened or aroused by a wild banging on the door. Almost fearfully, I went down the stairs to investigate. I was alone in the house.

Outside there was standing a strange haggard creature, trembling and shivering

with fear, with a deathly face, white and covered with perspiration. He opened his lips but could not speak.

For a full minute I stared at him and he at me, and neither spoke a word. Then at last I thought I recognized him.

"Good God!" I exclaimed. It was Mr. Manne! Undoubtedly, it was he, but terribly transformed. I took hold of his shivering hand and pulled him inside, shutting the door. As if he were a child, I led him upstairs to my bedroom and lit the gas fire. My own actions were mechanical and dazed.

He collapsed on a chair and I stood watching his twitching face. He was desperately afraid of something. What had put him into such a terrible state? A growing fear within me swelled and stirred. I feared what he feared, but I did not know what it was he feared. I felt terror taking a hold on me, shaking me.

Then he found his voice. He rose to his feet.

"It's unbearably hot in here," he gasped. "Let me open the window."

He did so and I turned down the fire although I was cold. He went back to the chair.

"Have you heard, Tom, have you heard?—about Parry and Johnston?"

"Yes," I heard myself saying, "and about Robins as well."

"What! Robins also! Did it get him as well?"

"What do you mean? What got him?"

I could not take the fear out of my voice. I felt my face paling.

Manne groaned and dropped his head into his hands.

"For God's sake, tell me what it is," I whispered. Horror made my voice hoarse.

He raised his head and tried to speak, but he could not.

Suddenly, a change came upon him. He began to perspire again, and his face, incredibly, became even paler than before. He sprang to his feet and pulled something wrapped in paper from his pocket, and thrust it into my hand.

"Take it! Take it!" he screamed, but I could hardly distinguish the words, so wild was his voice. "Take it! I can feel it coming again! Do what you like with it. Throw it away; destroy it. Only don't —*don't let me get at it!*"

His voice became fainter and weaker and he fell back on the chair. A strange disgust came upon me and I nearly dropped the object or threw it away from me.

"What's this?" I asked.

Manne groaned again.

"It's that stuff. Iodobenzaldehyde combined with xenon. Why did I ever make it? I thought it was an inspiration of genius. It was an impulse from Hell!

"And I had such fine ideas of its possibilities!"

He laughed, a horribly weak laugh which trailed into silence. I could not think of anything to say and I could not have said it if I had thought it.

"The first time I tried it, I thought that it was a marvelous tonic, a drug more powerful than opium and with none of its harmful effects. A little knowledge of a thing usually leads to wrong conclusions. In this case, nothing could be more opposite to the truth.

"I thought it was designed to raise the soul to ecstasy. I was wrong. I thought that its only bad effect was a watering of the eyes. I was wrong; utterly wrong!

"Whatever you may feel, whatever cravings may come upon you, *don't swallow that stuff!* D'you hear me?"

His voice gradually became louder and more difficult to follow. All this time, he had never ceased his trembling. At times, his voice rose to a shout and then it would suddenly become a whisper. His throat seemed to contract as waves of fear passed over him.

"The stuff doesn't exalt you or energize you . . . . What it does is to release the emotions from a lifetime of civilized control and suppression. It takes the bonds off secret desires. Its subtle physiological action leaves you with no control whatever."

A Man Gone Mad

● I stared at him with mounting horror.

"Yes! Yes! Emotions are increased a thousand-fold! It does not allow a particle of restraint! Whatever lurking beast is in you, it drags it out!"

He stopped and gasped, and I could not keep myself from shuddering. Then he went on in a slightly calmer tone.

"I suppose there is no harm in it, in itself. That is where it is so subtle! There is no intrinsic evil in it! The emotions have to be present there in the first place. But the slightest trivial thing is magnified beyond control.

"When I first swallowed it, it just happened that I was feeling optimistic at that moment and the feeling was accentuated to exaltation. If I had been irritable, it would have been the reverse. I might have murdered some one for practically no reason. Whatever emotion I felt, I would lose all control over it and it would swell until it dominated me.

"But that isn't the worst of it! Oh, no, that is nowhere near the worst of it!"

A more ghastly expression passed over his face, and he fixed his eyes on the object in my wavering hand.

"This is the full sum of its devilish properties! It is—*a habit-forming drug.*"

He wiped the moisture from his white face and rested his hands limply on his quaking knees.

"And God, how well I know it.

"The day after, it got me, and I had to take another dose."

There was the despair of death in his voice.

"The night of the supper, it struck me how funny it would be if I were to administer a dose to each of you unawares. Before I knew what had happened, a spasm had caught me, and the impulse was magnified to an overwhelming determination. I shook with silent laughter, gigantic and uncontrollable. While the impulse lasted, nothing could stop me. To my eternal damnation, I placed a dose in each cup of coffee . . . ."

Sweat broke out upon my own brow.

"But you spilt half of yours, and Swithendale also, so you escaped the full effect.

"But the other three—"

He could go no further. He was overcome at this crisis in the narrative.

"And now?" I managed to say.

"Now!" he shouted, "—fear of the horrible drug came over me like a storm and the fear was multiplied a thousand-fold. I could think of nothing else. I can think of nothing else. Fear filled my mind as any other emotion would have done—fear of all kinds of eventualities. What if a suicidal impulse came? Such is not uncommon among quite ordinary people, but it is always well under control. And then, remorse . . . . the burning memory of the drug given to my friends. I hardly dared to think at all, in case of further attack when I was unprepared.

"And then, trembling and perspiring, an abject coward, a miserable quivering wretch, I crawled to your house to ask you to protect me against myself!"

He broke down completely at this point, and I turned my eyes away from the horrible sight. I cannot tell what I felt. I think I was past feeling.

I heard a sudden movement and I looked back at him. He was rising slowly to his feet, watching me intently. He stretched out his hands. His face had changed completely.

"Give it back to me," he said with a hissing intonation. "I want that stuff back."

I moved away from him. "No," I said. "No; you will not. You *must* not."

"Give it back to me! Will you? Here!"

● I saw that he was becoming violent, so I slipped through the door to the stairhead. I hesitated a second and then stepped into the room next to my bedroom, and turned to shut the door, hardly realizing what I meant to do. But the door was flung back before I could close it, and he was upon me. There was certain madness in his eyes.

I sprang to a far corner. He never said a word but, keeping his eyes fixed on the

bottle which I still held in my hand, he slowly advanced.

I believe that I had intended to throw the stuff out of the window, but I was on the wrong side of the room for that.

For a full minute, perhaps, we avoided each other, moving stealthily and slowly, and then he made a rush at me, but I broke free. There was now no doubt in my mind that he was quite mad. I had just made up my mind to give him back the bottle rather than risk my life, when he suddenly jerked up a chair and swung it at me with terrible force. By good luck, I averted my head in time. The chair caught me on the shoulder and sent me spinning around. I fell to the floor in a heap. There was a crash as the bottle burst and scattered its powder all over the room.

My legs were entangled with the chair and it was some time before I could get up. When I did so, I was alone in the room. But on the landing outside, I could hear some one sobbing and shouting and swearing. The scalp of my head wrinkled with horror.

"Good God!" I heard him screaming. "Good God! What have I done? I have tried to kill my best friend! Good God! Good God!"

I put my hands to my ears to shut out the terrible sound.

He suddenly stopped and, by the sound of his footsteps, he appeared to rush into the next room; my bedroom. I felt impelled to go out to the landing to follow him. I had just reached my bedroom door when I heard, from the street outside, a most frightful cracking noise, and a horrible thud.

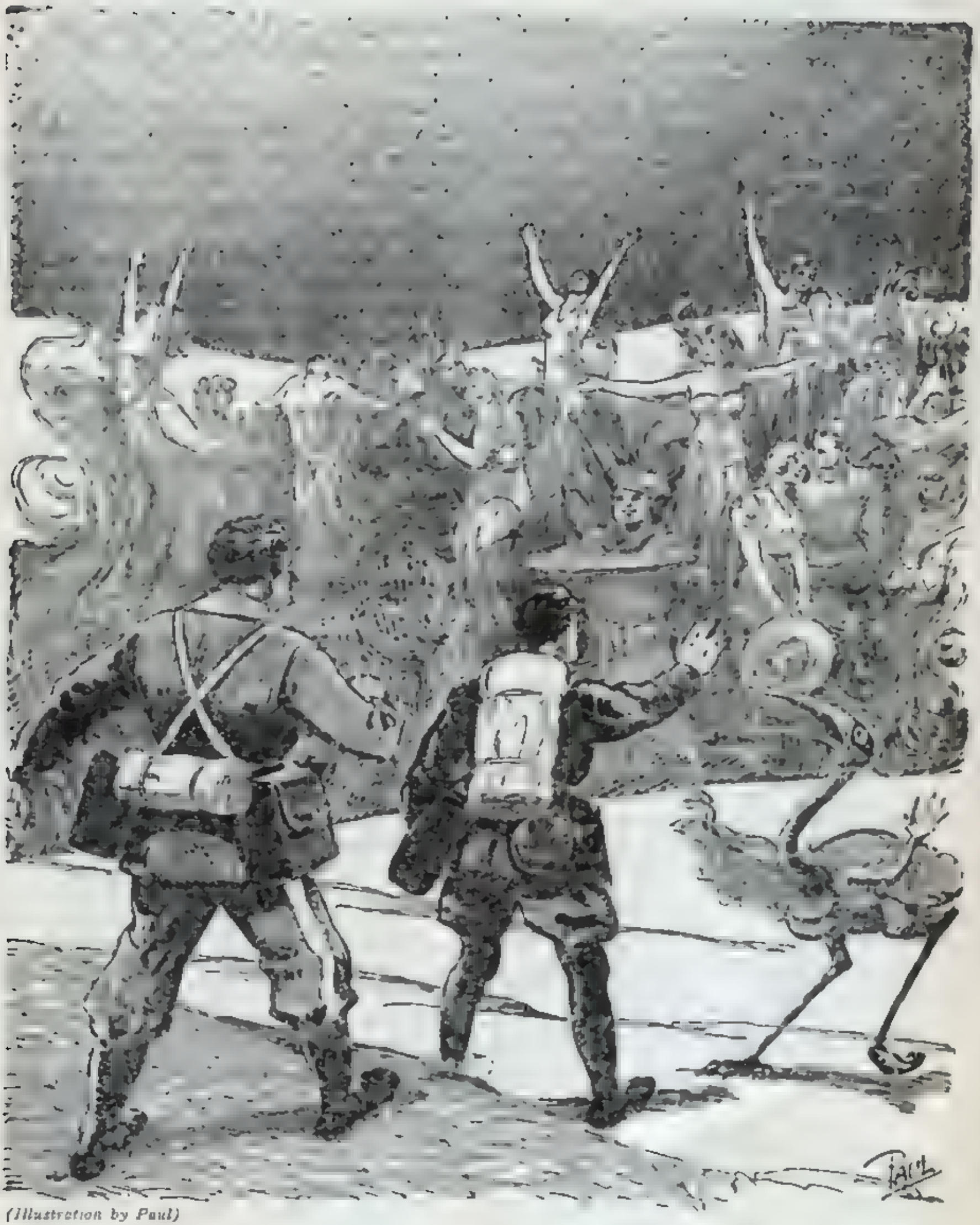
I did not need to look through the open window.

THE END

WHAT IS YOUR SCIENCE KNOWLEDGE?

Test Yourself by This Questionnaire

1. Give examples of the lever, ball-and-socket joint, and smoke screen in nature. (See Page 645)
2. What is the evolutionist's theory of life? (See Page 651)
3. Give a description of suspended animation—what does the term mean? (See Page 654)
4. How does manganese-steel rank as a tough metal? (See Page 655)
5. Do chemicals have any effect on manganese-steel? (See Page 658)
6. Were the Neanderthal men of the *genus homo?* (See Page 666)
7. How long were the Neanderthal men in existence? (See Page 666)
8. What is xenon? (See Page 669)
9. On what part of Mars is the Mare Australe? (See Page 680)
10. Who was Thoth? (See Page 685)
11. Who was the inventor of writing? (See Page 685)
12. What is a thermocouple? (See Page 686)
13. What are the three types of society? (See Page 687)
14. What is anarchy? (See Page 687)
15. Who is the planet Mars named after? (See Page 687)
16. During what period did reptiles rule the earth? (See Page 693)
17. Name one herbivorous and one carnivorous reptile. (See Page 696)
18. Tell all you can about the stegosaurus. (See Page 699)
19. What do termites do with their sexless individuals? (See Page 739)
20. About how many cells are in an average human body? (See Page 742)
21. How fast do radio waves travel? (See Page 748)
22. Who first noticed that light was not instantaneous? (See Page 748)
23. Describe briefly the principle of the telegraph. (See Page 749)
24. What is a proton? (See Page 749)
25. Why is Jupiter generally believed not to have a solid surface? (See Page 749)



(Illustration by Paul)

I saw every beautiful woman I've ever known, and all of them pleading for my attention.

VALLEY OF DREAMS

By STANLEY G. WEINBAUM

● Mr. Weinbaum's first story, "A Martian Odyssey," was acclaimed by many of our readers to be the most well-written and fascinatingly told story of the year. Indeed, the author has a style all of his own, an attention-holding method of presenting a real mental treat.

You will be pleased to read this sequel, which continues the adventures—the most unusual adventures—of the first men who successfully explore Mars.

This story, like the first, stands far above all others in relating the incidents of the first space-voyage. It is written in a light vein, amusing, breezy, and charming, due to the fact that the author keeps you guessing.

We are confident that you will like this tale as well as "A Martian Odyssey."

● Captain Harrison of the *Ares* expedition turned away from the little telescope in the bow of the rocket. "Two weeks more, at the most," he remarked. "Mars only retrogrades for seventy days in all, relative to the earth, and we've got to be homeward bound during that period, or wait a year and a half for old Mother Earth to go around the sun and catch up with us again. How'd you like to spend a winter here?"

Dick Jarvis, chemist of the party, shivered as he looked up from his notebook. "I'd just as soon spend it in a liquid air tank!" he averred. "These eighty-below-zero summer nights are plenty for me."

"Well," mused the captain, "the first successful Mars expedition ought to be home long before then."

"Successful if we *get* home," corrected Jarvis. "I don't trust these cranky rockets—not since the auxiliary dumped me in the middle of Thyle last week. Walking back from a rocket ride is a new sensation to me."

"Which reminds me," returned Harrison, "that we've got to recover your films. They're important if we're to pull this trip out of the red. Remember how the public mobbed the first moon pictures? Our shots ought to pack 'em to the doors. And the broadcast rights, too; we might show a profit for the Academy."

"What interests me," countered Jarvis, "is personal profit. A book, for instance; exploration books are always popular. *Martia Deserta*—how's that for a title?"

"Lousy!" grunted the captain. "Sounds like a cook-book for desserts. You'd have to call it 'Love Life of a Martian,' or something like that."

Jarvis chuckled. "Anyway," he said, "if we once get back home, I'm going to grab what profit there is, and never, never, get any farther from the earth than a good stratosphere plane'll take me. I've learned to appreciate the planet after plowing over this dried-up pill we're on now."

"I'll lay you odds you'll be back here year after next," grinned the Captain. "You'll want to visit your pal—that trick ostrich."

"Tweel?" The other's tone sobered. "I wish I hadn't lost him, at that. He was a good scout. I'd never have survived the dream-beast but for him. And that battle with the push-cart things—I never even had a chance to thank him."

"A pair of lunatics, you two," observed Harrison. He squinted through the port at the gray gloom of the Mare Cimmerium. "There comes the sun." He paused. "Listen, Dick—you and Leroy take the other auxiliary rocket and go out and salvage those films."

Jarvis stared. "Me and Leroy?" he echoed ungrammatically. "Why not me

and Putz? An engineer would have some chance of getting us there and back if the rocket goes bad on us."

The captain nodded toward the stern, whence issued at that moment a medley of blows and guttural expletives. "Putz is going over the insides of the *Ares*," he announced. "He'll have his hands full until we leave, because I want every bolt inspected. It's too late for repairs once we cast off."

"And if Leroy and I crack up? That's our last auxiliary."

"Pick up another ostrich and walk back," suggested Harrison gruffly. Then he smiled. "If you have trouble, we'll hunt you out in the *Ares*," he finished. "Those films are important." He turned. "Leroy!"

The dapper little biologist appeared, his face questioning.

"You and Jarvis are off to salvage the auxiliary," the Captain said. "Everything's ready and you'd better start now. Call back at half-hour intervals; I'll be listening."

Leroy's eyes glistened. "Perhaps we land for specimens—no?" he queried.

"Land if you want to. This golf ball seems safe enough."

"Except for the dream-beast," muttered Jarvis with a faint shudder. He frowned suddenly. "Say, as long as we're going that way, suppose I have a look for Tweel's home! He must live off there somewhere, and he's the most important thing we've seen on Mars."

Harrison hesitated. "If I thought you could keep out of trouble," he muttered. "All right," he decided. "Have a look. There's food and water aboard the auxiliary; you can take a couple of days. But keep in touch with me, you saps!"

Jarvis and Leroy went through the airlock out to the grey plain. The thin air, still scarcely warmed by the rising sun, bit flesh and lungs like needles, and they gasped with a sense of suffocation. They dropped to a sitting posture, waiting for their bodies, trained by months in acclimatization chambers back on earth, to accommodate themselves to the tenuous air. Leroy's face, as always, turned a smothered blue, and Jarvis heard his own breath rasping and rattling in his throat. But in five minutes, the discomfort passed; they rose and entered the little auxiliary rocket that rested beside the black hull of the *Ares*.

The under-jets roared out their fiery atomic blast; dirt and bits of shattered biopods spun away in a cloud as the rocket rose. Harrison watched the projectile trail its flaming way into the south, then turned back to his work.

● It was four days before he saw the rocket again. Just at evening, as the sun dropped behind the horizon with the suddenness of a candle falling into the sea, the auxiliary flashed out of the southern heavens, easing gently down on the flaming wings of the under-jets. Jarvis and Leroy emerged, passed through the swiftly gathering dusk, and faced him in the light of the *Ares*. He surveyed the two; Jarvis was tattered and scratched, but apparently in better condition than Leroy, whose dapperness was completely lost. The little biologist was pale as the nearer moon that glowed outside; one arm was bandaged in thermo-skin and his clothes hung in veritable rags. But it was his eyes that struck Harrison most strangely; to one who had lived these many weary days with the diminutive Frenchman, there was something queer about them. They were frightened, plainly enough, and that was odd, since Leroy was no coward or he'd never have been one of the four chosen by the Academy for the first Martian expedition. But the fear in his eyes was more understandable than that other expression, that queer fixity of gaze like one in a trance, or like a person in an ecstasy. "Like a chap who's seen Heaven and Hell together," Harrison expressed it to himself. He was yet to discover how right he was.

He assumed a gruffness as the weary pair sat down. "You're a fine looking couple!" he growled. "I should've known better than to let you wander off alone." He

paused. "Is your arm all right, Leroy? Need any treatment?"

Jarvis answered. "It's all right — just gashed. No danger of infection here, I guess; Leroy says there aren't any microbes on Mars."

"Well," exploded the Captain, "let's hear it, then! Your radio reports sounded screwy. 'Escaped from Paradise!' Huh!"

"I didn't want to give details on the radio," said Jarvis soberly. "You'd have thought we'd gone loony."

"I think so, anyway."

"Moi aussi!" muttered Leroy. "I too!"

"Shall I begin at the beginning?" queried the chemist. "Our early reports were pretty near complete." He stared at Putz, who had come in silently, his face and hands blackened with carbon, and seated himself beside Harrison.

"At the beginning," the Captain decided.

"Well," began Jarvis, "we got started all right, and flew due south along the meridian of the *Ares,* same course I'd followed last week. I was getting used to this narrow horizon, so I didn't feel so much like being cooped under a big bowl, but one does keep overestimating distances. Something four miles away looks eight when you're used to terrestrial curvature, and that makes you guess its size just four times too large. A little hill looks like a mountain until you're almost over it."

"I know that," grunted Harrison.

"Yes, but Leroy didn't, and I spent our first couple of hours trying to explain it to him. By the time he understood (if he does yet) we were past Cimmerium and over that Xanthus desert, and then we crossed the canal with the mud city and the barrel-shaped citizens and the place where Tweel had shot the dream-beast. And nothing would do for Pierre here but that we put down so he could practice his biology on the remains. So we did.

"The thing was still there. No sign of decay; couldn't be, of course, without bacterial forms of life, and Leroy says that Mars is as sterile as an operating table."

"Comme le coeur d'une fileuse," corrected the little biologist, who was beginning to regain a trace of his usual energy. "Like an old maid's heart!"

"However," resumed Jarvis, "about a hundred of the little grey-green biopods had fastened onto the thing and were growing and branching. Leroy found a stick and knocked 'em off, and each branch broke away and became a biopod crawling around with the others. So he poked around at the creature, while I looked away from it; even dead, that rope-armed devil gave me the creeps. And then came the surprise; the thing was part plant!"

"C'est vrai!" confirmed the biologist. "It's true!"

"It was a big cousin of the biopods," continued Jarvis. "Leroy was quite excited; he figures that all Martian life is of that sort—neither plant nor animal. Life here never differentiated, he says; everything has both natures in it, even the barrel-creatures—even Tweel! I think he's right, especially when I recall how Tweel rested, sticking his beak in the ground and staying that way all night. I never saw him eat or drink, either; perhaps his beak was more in the nature of a root, and he got his nourishment that way."

"Sounds nutty to me," observed Harrison.

"Well," continued Jarvis, "we broke up a few of the other growths and they acted the same way—the pieces crawled around, only much slower than the biopods, and then stuck themselves in the ground. Then Leroy had to catch a sample of the walking grass, and we were ready to leave when a parade of the barrel creatures rushed by with their push-carts. They hadn't forgotten me, either; they all drummed out, 'We are v-r-r-iends —ouch!' just as they had before. Leroy wanted to shoot one and cut it up, but I remembered the battle Tweel and I had had with them, and vetoed the idea. But he did hit on a possible explanation as to what they did with all the rubbish they gathered."

"Made mud-pies, I guess," grunted the captain.

"More or less," agreed Jarvis. "They use it for food, Leroy thinks. If they're part vegetable, you see, that's what they'd want—soil with organic remains in it to make it fertile. That's why they ground up sand and biopods and other growths all together. See?"

"Dimly," countered Harrison. "How about the suicides?"

● "Leroy had a hunch there, too. The suicides jump into the grinder when the mixture has too much sand and gravel; they throw themselves in to adjust the proportions."

"Rats!" said Harrison disgustedly. "Why couldn't they bring in some extra branches from outside?"

"Because suicide is easier. You've got to remember that these creatures can't be judged by earthly standards; they probably don't feel pain, and they haven't got what we'd call individuality. Any intelligence they have is the property of the whole community — like an ant-heap. That's it! Ants are willing to die for their ant-hill; so are these creatures."

"So are men," observed the captain, "if it comes to that."

"Yes, but men aren't exactly eager. It takes some emotion like patriotism to work 'em up to the point of dying for their country; these things do it all in the day's work." He paused.

"Well, we took some pictures of the dream-beast and the barrel-creatures, and then we started along. We sailed over Xanthus, keeping as close to the meridian of the *Ares* as we could, and pretty soon we crossed the trail of the pyramid-builder. So we circled back to let Leroy take a look at it, and when we found it, we landed. The thing had completed just two rows of bricks since Tweel and I left it, and there it was, breathing in silicon and breathing out bricks as if it had eternity to do it in—which it has. Leroy wanted to dissect it with a Boland explosive bullet, but I thought that anything that had lived for ten millions years was entitled to the respect due old age, so I talked him out of it. He peeped into the hole on top of it and nearly got beaned by the arm coming up for a brick, and then he chipped off a few pieces of it, which didn't disturb the creature a bit. He found the place I'd chipped, tried to see if there was any sign of healing, and decided he could tell better in two or three thousand years. So we took a few shots of it and sailed on.

"Mid afternoon we located the wreck of my rocket. Not a thing disturbed; we picked up my films and tried to decide what next. I wanted to find Tweel if possible; I figured from the fact of his pointing south that he lived somewhere near Thyle. We plotted our route and judged that the desert we were in now was Thyle II; Thyle I should be east of us. So, on a hunch, we decided to have a look at Thyle I, and away we buzzed."

"*Der* motors?" queried Putz, breaking his long silence.

"For a wonder, we had no trouble, Karl. Your blast worked perfectly. So we hummed along, pretty high up to get a wider view, I'd say about fifty thousand feet. Thyle II spread out like an orange carpet, and after a while we came to the grey branch of the *Mare Chronium* that bounded it. That was narrow; we crossed it in half an hour, and there was Thyle I — same orange-hued desert as its mate. We veered south, toward the *Mare Australe*, and followed the edge of the desert. And toward sunset we spotted it."

"Shpotted?" echoed Putz. "Vot vas shpotted?"

"The desert was spotted—with buildings! Not one of the mud cities of the canals, although a canal went through it. From the map we figured the canal was a continuation of the one Schiaparelli called Ascanius.

"We were probably too high to be visible to any inhabitants of the city, but also too high for a good look at it, even with the glasses. However, it was nearly sunset, anyway, so we didn't plan on dropping in. We circled the place; the canal went out into the *Mare Australe*, and there, glittering in the south, was the melting polar ice-cap! The canal drained it; we could distinguish the sparkle of water

in it. Off to the southeast, just at the edge of the *Mare Australe*, was a valley—the first irregularity I'd seen on Mars except the cliffs that bounded Xanthus and Thyle II. We flew over that valley—" Jarvis paused suddenly and shuddered; Leroy, whose color had begun to return, seemed to pale. The chemist resumed, "Well, the valley looked all right—then! Just a gray waste, probably full of crawlers like the others.

"We circled back over the city; say, I want to tell you that place was—well, gigantic! It was colossal; at first I thought the size was due to that illusion I spoke of—you know, the nearness of the horizon—but it wasn't that. We sailed right over it, and you've never seen anything like it!

"But the sun dropped out of sight right then. I knew we were pretty far south—latitude 60—but I didn't know just how much night we'd have."

Ibis-Headed Thoth

Harrison glanced at a Schiaparelli chart. "About 60—eh?" he said. "Close to what corresponds to the Antarctic circle. You'd have about four hours of night at this season. Three months from now you'd have none at all."

"Three months!" echoed Jarvis, surprised. Then he grinned. "Right! I forget the seasons here are twice as long as ours. Well, we sailed out into the desert about twenty miles, which put the city below the horizon in case we overslept, and there we spent the night.

"You're right about the length of it. We had about four hours of darkness which left us fairly rested. We ate breakfast, called our location to you, and started over to have a look at the city.

"We sailed toward it from the east and it loomed up ahead of us like a range of mountains. Lord, what a city! Not that New York mightn't have higher buildings, or Chicago cover more ground, but for sheer mass, those structures were in a class by themselves. Gargantuan!

"There was a queer look about the place, though. You know how a terrestrial city sprawls out, a nimbus of suburbs, a ring of residential sections, factory districts, parks, highways. There was none of that here; the city rose out of the desert as abruptly as a cliff. Only a few little sand mounds marked the division, and then the walls of those gigantic structures.

"The architecture was strange, too. There were lots of devices that are impossible back home, such as set-backs in reverse, so that a building with a small base could spread out as it rose. That would be a valuable trick in New York, where land is almost priceless, but to do it, you'd have to transfer Martian gravitation there!

"Well, since you can't very well land a rocket in a city street, we put down right next to the canal side of the city, took our small cameras and revolvers, and started for a gap in the wall of masonry. We weren't ten feet from the rocket when we both saw the explanation for a lot of the queerness.

"The city was in ruin!—abandoned, deserted, dead as Babylon! Or at least, so it looked to us then, with its empty streets which, if they *had* been paved, were now deep under sand."

"A ruin, eh?" commented Harrison. "How old?"

"How could we tell?" countered Jarvis. "The next expedition to this golf ball ought to carry an archeologist—and a philologist, too, as we found out later. But it's a devil of a job to estimate the age of anything here; things weather so slowly that most of the buildings might have been put up yesterday. No rainfall, no earthquakes, no vegetation is here to spread cracks with its roots—nothing. The only aging factors here are the erosion of the wind—and that's negligible in this atmosphere—and the cracks caused by changing temperature. And one other agent—meteorites. They must crash down occasionally on the city, judging from the thinness of the air, and the fact that we've seen four strike ground right here near the *Ares*."

"Seven," corrected the captain. "Three dropped while you were gone."

"Well, damage by meteorites must be slow, anyway. Big ones would be as rare here as on earth, because big ones get through in spite of the atmosphere, and those buildings could sustain a lot of little ones. My guess at the city's age—and it may be wrong by a big percentage — would be fifteen thousand years. Even that's thousands of years older than any human civilization; fifteen thousand years ago was the Late Stone Age in the history of mankind.

"So Leroy and I crept up to those tremendous buildings feeling like pygmies, sort of awe-struck, and talking in whispers. I tell you, it was ghostly walking down that dead and deserted street, and every time we passed through a shadow, we shivered, and not just because shadows are cold on Mars. We felt like intruders, as if the great race that had built the place might resent our presence even across a hundred and fifty centuries. The place was as quiet as a grave, but we kept imagining things and peeping down the dark lanes between buildings and looking over our shoulders. Most of the structures were windowless, but when we did see an opening in those vast walls, we couldn't look away, expecting to see some horror peering out of it.

"Then we passed an edifice with an open arch; the doors were there, but blocked open by sand. I got up nerve enough to take a look inside, and then, of course, we discovered we'd forgotten to take our flashes. But we eased a few feet into the darkness and the passage debouched into a colossal hall. Far above us a little crack let in a pallid ray of daylight, not nearly enough to light the place; I couldn't even see if the hall rose clear to the distant roof. But I know the place was enormous; I said something to Leroy and a million thin echoes came slipping back to us out of the darkness. And after that, we began to hear other sounds — slithering rustling noises, and whispers, and sounds like suppressed breathing— and something black and silent passed between us and that far-away crevice of light.

"Then we saw three little greenish spots of luminosity in the dusk to our left. We stood staring at them, and suddenly they all shifted at once. Leroy yelled, *'Ce sont des yeux!'* and they were! They were eyes!

● "Well, we stood frozen for a moment, while Leroy's yell reverberated back and forth between the distant walls, and the echoes repeated the words in queer, thin voices. There were mumblings and mutterings and whisperings and sounds like strange soft laughter, and then the three-eyed thing moved again. Then we broke for the door!

"We felt better out in the sunlight; we looked at each other sheepishly, but neither of us suggested another look at the building's inside—though we *did* see the place later, and that was queer, too—but you'll hear about it when I come to it. We just loosened our revolvers and crept on along that ghostly street.

"The street curved and twisted and subdivided. I kept careful note of our directions, since we couldn't risk getting lost in that gigantic maze. Without our thermo-skin bags, night would finish us, even if what lurked in the ruins didn't. By and by, I noticed that we were veering back toward the canal. The giant buildings seemed a little less massive than those behind us, though we still felt like a pair of ants crawling down Broadway. Then, at the bank of the canal, the buildings ended and there were only a few dozen ragged stone huts which looked as though they might have been built of débris from the city. I was just beginning to feel a bit disappointed at finding no trace of Tweel's people here when we rounded a corner and there he was!

"I yelled 'Tweel!' but he just stared, and then I realized that he wasn't Tweel, but another Martian of his sort. Tweel's feathery appendages were more orange-hued and he stood several inches taller than this one. Leroy was sputtering in excitement, and the Martian kept his vicious beak directed at us, so I stepped forward as peace-maker. I said 'Tweel?'

very questioningly, but there was no result. I tried it a dozen times, and we finally had to give it up; we couldn't connect.

"Leroy and I walked toward the huts, and the Martian followed us. Twice he was joined by others, and each time I tried yelling 'Tweel' at them, but they just stared at us. So we ambled on with the three trailing us, and then it suddenly occurred to me that my Martian accent might be at fault. I faced the group and tried trilling it out the way Tweel himself did: 'T-r-r-rweee-r-rl!' Like that.

"And that worked! One of them spun his head around a full ninety degrees, and screeched 'T-r-r-rweee-r-rl!' and a moment later, like an arrow from a bow, Tweel came sailing over the nearer huts to land on his beak in front of me!

"Man, we were glad to see each other! Tweel set up a twittering and chirping like a farm in summer and went sailing up and coming down on his beak, and I would have grabbed his hands, only he wouldn't keep still long enough.

"The other Martians and Leroy just stared, and after a while, Tweel stopped bouncing, and there we were. We couldn't talk to each other any more than we could before, so after I'd said 'Tweel' a couple of times and he'd said 'Tick,' we were more or less helpless. However, it was only mid-morning, and it seemed important to learn all we could about Tweel and the city, so I suggested that he guide us around the place if he weren't busy. I put over the idea by pointing back at the buildings and then at him and us.

"Well, apparently he wasn't too busy, for he set off with us, leading the way with one of his hundred and fifty-foot nosedives that set Leroy gasping. When we caught up, he said something like 'one, one, two—two, two, four—no, no—yes, yes—rock—no breet'!' That didn't seem to mean anything; perhaps he was just letting Leroy know that he could speak English, or perhaps he was merely running over his vocabulary to refresh his memory.

"Anyway, he showed us around. He had a light of sorts in his black pouch, good enough for small rooms, but simply lost in some of the colossal caverns we went through. Nine out of ten buildings meant absolutely nothing to us—just vast empty chambers, full of shadows and rustlings and echoes. I couldn't imagine their use; they didn't seem suitable for living quarters, or even for commercial purposes—trade and so forth; they might have been all right as power-houses, but what could have been the purpose of a whole city-full? And where were the remains of the machinery?

"The place was a mystery. Sometimes Tweel would show us through a hall that would have housed an ocean-liner, and he'd seem to swell with pride—and we couldn't make a damn thing of it! As a display of architectural power, the city was colossal; as anything else it was just nutty!

"But we did see one thing that registered. We came to that same building Leroy and I had entered earlier—the one with the three eyes in it. Well, we were a little shaky about going in there, but Tweel twittered and trilled and kept saying, 'Yes, yes, yes!' so we followed him, staring nervously about for the thing that had watched us. However, that hall was just like the others, full of murmurs and slithering noises and shadowy things slipping away into corners. If the three-eyed creature were still there, it must have slunk away with the others.

● "Tweel led us along the wall; his light showed a series of little alcoves, and in the first of these we ran into a puzzling thing—a very weird thing. As the light flashed into the alcove, I saw first just an empty space, and then, squatting on the floor, I saw—it! A little creature about as big as a large rat, it was, gray and huddled and evidently startled by our appearance. It had the queerest, most devilish little face!—pointed ears or horns and satanic eyes that seemed to sparkle with a sort of fiendish intelligence.

"Tweel saw it, too, and let out a screech of anger, and the creature rose on two pencil-thin legs and scuttled off with a

half-terrified, half-defiant squeak. It darted past us into the darkness too quickly even for Tweel, and as it ran, something waved on its body like the fluttering of a cape. Tweel screeched angrily at it and set up a shrill hullabaloo that sounded like genuine rage.

"But the thing was gone, and then I noticed the weirdest of imaginable details. Where it had squatted on the floor was—a book! It had been hunched over a book!

"I took a step forward; sure enough, there was some sort of inscription on the pages—wavy white lines like a seismograph record on black sheets like the material of Tweel's pouch. Tweel fumed and whistled in wrath, picked up the volume and slammed it into place on a shelf full of others. Leroy and I stared dumfounded at each other.

"Had the little thing with the fiendish face been reading? Or was it simply eating the pages, getting physical nourishment rather than mental? Or had the whole thing been accidental?

"If the creature were some rat-like pest that destroyed books, Tweel's rage was understandable, but why should he try to prevent an intelligent being, even though of an alien race, from *reading*—if it *was* reading? I don't know; I did notice that the book was entirely undamaged, nor did I see a damaged book among any that we handled. But I have an odd hunch that if we knew the secret of the little cape-clothed imp, we'd know the mystery of the vast abandoned city and of the decay of Martian culture.

"Well, Tweel quieted down after a while and led us completely around that tremendous hall. It had been a library, I think; at least, there were thousands upon thousands of those queer black-paged volumes printed in wavy lines of white. There were pictures, too, in some; and some of these showed Tweel's people. That's a point, of course; it indicates that his race built the city and printed the books. I don't think the greatest philologist on earth will ever translate one line of those records; they were made by minds too different from ours.

"Tweel could read them, naturally. He twittered off a few lines, and then I took a few of the books, with his permission; he said 'no, no!' to some and 'yes, yes!' to others. Perhaps he kept back the ones his people needed, or perhaps he let me take the ones he thought we'd understand most easily. I don't know; the books are outside there in the rocket.

"Then he held that dim torch of his toward the walls, and they were pictured. Lord, what pictures! They stretched up and up into the blackness of the roof, mysterious and gigantic. I couldn't make much of the first wall; it seemed to be a portrayal of a great assembly of Tweel's people. Perhaps it was meant to symbolize Society or Government. But the next wall was more obvious; it showed creatures at work on a colossal machine of some sort, and that would be Industry or Science. The back wall had corroded away in part; from what we could see, I suspected the scene was meant to portray Art, but it was on the fourth wall that we got a shock that nearly dazed us.

"I think the symbol was Exploration or Discovery. This wall was a little plainer, because the moving beam of daylight from that crack lit up the higher surface and Tweel's torch illuminated the lower. We made out a giant seated figure, one of the beaked Martians like Tweel, but with every limb suggesting heaviness, weariness. The arms dropped inertly on the chair, the thin neck bent and the beak rested on the body, as if the creature could scarcely bear its own weight. And before it was a queer kneeling figure, and at sight of it, Leroy and I almost reeled against each other. It was, apparently, a man!"

"A man!" bellowed Harrison. "A man, you say?"

● "I said apparently," retorted Jarvis.

"The artist had exaggerated the nose almost to the length of Tweel's beak, but the figure had black shoulder-length hair, and instead of the Martian four, there were *five* fingers on its outstretched hand! It was kneeling as if in worship of the Martian, and on the ground was what

looked like a pottery bowl full of some food as an offering. Well! Leroy and I thought we'd gone screwy!"

"And Putz and I think so, too!" roared the captain.

"Maybe we all have," replied Jarvis, with a faint grin at the pale face of the little Frenchman, who returned it in silence. "Anyway," he continued, "Tweel was squeaking and pointing at the figure, and saying 'Tick! Tick!' so he recognized the resemblance—and never mind any cracks about my nose!" he warned the captain. "It was Leroy who made the important comment; he looked at the Martian and said 'Thoth! The god Thoth!' "

"Oui!" confirmed the biologist. *"Comme l'Egypte!"*

"Yeah," said Jarvis. "Like the Egyptian ibis-headed god—the one with the beak. Well, no sooner did Tweel hear the name Thoth than he set up a clamor of twittering and squeaking. He pointed at himself and said 'Thoth! Thoth!' and then waved his arm all around and repeated it. Of course he often did queer things, but we both thought we understood what he meant. He was trying to tell us that his race called themselves Thoth. Do you see what I'm getting at?"

"I see, all right," said Harrison. "You think the Martians paid a visit to the earth, and the Egyptians remembered it in their mythology. Well, you're off, then; there wasn't any Egyptian civilization fifteen thousand years ago."

"Wrong!" grinned Jarvis. "It's too bad we *haven't* an archeologist with us, but Leroy tells me that there was a stone-age culture in Egypt then, the pre-dynastic civilization."

"Well, even so, what of it?"

"Plenty! Everything in that picture proves my point. The attitude of the Martian, heavy and weary—that's the unnatural strain of terrestrial gravitation. The name Thoth; Leroy tells me Thoth was the Egyptian god of philosophy and the *inventor of writing!* Get that? They must have picked up the idea from watching the Martian take notes. It's too much for coincidence that Thoth should be beaked and ibis-headed, and that the beaked Martians call themselves Thoth."

"Well, I'll be hanged! But what about the nose on the Egyptian? Do you mean to tell me that stone-age Egyptians had longer noses than ordinary men?"

"Of course not! It's just that the Martians very naturally cast their paintings in Martianized form. Don't human beings tend to relate everything to themselves? That's why dugongs and manatees started the mermaid myths—sailors thought they saw human features on the beasts. So the Martian artist, drawing either from descriptions or imperfect photographs, naturally exaggerated the size of the human nose to a degree that looked normal to him. Or anyway, that's my theory."

"Well, it'll do as a theory," grunted Harrison. "What I want to hear is why you two got back here looking like a couple of year-before-last bird's nests."

Paradise and Hell

Jarvis shuddered again, and cast another glance at Leroy. The little biologist was recovering some of his accustomed poise, but he returned the glance with an echo of the chemist's shudder. "We'll get to that," resumed the latter. "Meanwhile I'll stick to Tweel and his people. We spent the better part of three days with them, as you know. I can't give every detail, but I'll summarize the important facts and give our conclusions, which may not be worth an inflated franc. It's hard to judge this dried-up world by earthly standards.

"We took pictures of everything possible; I even tried to photograph that gigantic mural in the library, but unless Tweel's lamp was unusually rich in actinic rays, I don't suppose it'll show. And that's a pity, since it's undoubtedly the most interesting object we've found on Mars, at least from a human viewpoint.

"Tweel was a very courteous host. He took us to all the points of interest—even the new water-works."

Putz's eyes brightened at the word. "Vater-vorks?" he echoed. "For vot?"

"For the canal, naturally. They have to build up a head of water to drive it through; that's obvious." He looked at the captain. "You told me yourself that to drive water from the polar caps of Mars to the equator was equivalent to forcing it up a twenty-mile hill, because Mars is flattened at the poles and bulges at the equator just like the earth."

"That's true," agreed Harrison.

"Well," resumed Jarvis, "this city was one of the relay stations to boost the flow. Their power plant was the only one of the giant buildings that seemed to serve any useful purpose, and that *was* worth seeing. I wish you'd seen it, Karl; you'll have to make what you can from our pictures. It's a sun-power plant!"

Harrison and Putz stared. "Sun-power!" grunted the captain. "That's primitive!" And the engineer added an emphatic *"Ja!"* of agreement.

"Not as primitive as all that," corrected Jarvis. "The sunlight focused on a queer cylinder in the center of a big concave mirror, and they drew an electric current from it. The juice worked the pumps."

"A t'ermocouple!" ejaculated Putz.

"That sounds reasonable; you can judge by the pictures. But the power-plant had some queer things about it. The queerest was that the machinery was tended, not by Tweel's people, but by some of the barrel-shaped creatures like the ones in Xanthus!" He gazed around at the faces of his auditors; there was no comment.

"Get it?" he resumed. At their silence, he proceeded, "I see you don't. Leroy figured it out, but whether rightly or wrongly, I don't know. He thinks that the barrels and Tweel's race have a reciprocal arrangement like — well, like bees and flowers on earth. The flowers give honey for the bees; the bees carry the pollen for the flowers. See? The barrels tend the works and Tweel's people build the canal system. The Xanthus city must have been a boosting station; that explains the mysterious machines I saw. And Leroy believes further that it isn't an intelligent arrangement—not on the part of the barrels, at least—but that it's been done for so many thousands of generations that it's become instinctive—a tropism—just like the actions of ants and bees. The creatures have been bred to it!"

"Nuts!" observed Harrison. "Let's hear you explain the reason for that big empty city, then."

"Sure. Tweel's civilization is decadent, that's the reason. It's a dying race, and out of all the millions that must once have lived there, Tweel's couple of hundred companions are the remnant. They're an outpost, left to tend the source of the water at the polar cap; probably there are still a few respectable cities left somewhere on the canal system, most likely near the tropics. It's the last gasp of a race—and a race that reached a higher peak of culture than Man!"

"Huh?" said Harrison. "Then why are they dying? Lack of water?"

"I don't think so," responded the chemist. "If my guess at the city's age is right, fifteen thousand years wouldn't make enough difference in the water supply—nor a hundred thousand, for that matter. It's something else, though the water's doubtless a factor."

"Das wasser," cut in Putz. "Vere goes dot?"

"Even a chemist knows that!" scoffed Jarvis. "At least on earth. Here I'm not so sure, but on earth, every time there's a lightning flash, it electrolyzes some water vapor into hydrogen and oxygen, and then the hydrogen escapes into space, because terrestrial gravitation won't hold it permanently. And every time there's an earthquake, some water is lost to the interior. Slow—but damned certain." He turned to Harrison. "Right, Cap?"

"Right," conceded the captain. "But here, of course—no earthquakes, no thunderstorms—the loss must be very slow. Then why *is* the race dying?"

"The sun-power plant answers that," countered Jarvis. "Lack of fuel! Lack of power! No oil left, no coal left—if Mars ever had a Carboniferous Age—and no water-power—just the driblets of energy

they can get from the sun. That's why they're dying.

"With the limitless energy of the atom?" exploded Harrison.

"They don't know about atomic energy. Probably never did. Must have used some other principle in their space-ship."

"Then," snapped the captain, "what makes you rate their intelligence above the human? *We've* finally cracked open the atom!"

"Sure we have. We had a clue, didn't we? Radium and uranium. Do you think we'd ever have learned how without those elements? We'd never even have suspected that atomic energy existed!"

"Well? Haven't they—?"

"No, they haven't. You've told me yourself that Mars has only 73 per cent of the earth's density. Even a chemist can see that that means a lack of heavy metals—no osmium, no uranium, no radium. They didn't have the clue."

"Even so, that doesn't prove they're more advanced than we are. If they were *more* advanced, they'd have discovered it anyway."

"Maybe," conceded Jarvis. "I'm not claiming that we don't surpass them in some ways. But in others, they're far ahead of us."

"In what, for instance?"

"Well—socially, for one thing."

"Huh? How do you mean?"

● Jarvis glanced in turn at each of the three that faced him. He hesitated. "I wonder how you chaps will take this," he muttered. "Naturally, everybody likes his own system best." He frowned. "Look here—on the earth we have three types of society, haven't we? And there's a member of each type right here. Putz lives under a dictatorship—an autocracy. Leroy's a citizen of the Sixth Commune in France. Harrison and I are Americans, members of a democracy. There you are — autocracy, democracy, communism — the three types of terrestrial societies. Tweel's people have a different system from any of us."

"Different? What is it?"

"The one no earthly nation has tried. Anarchy!"

"Anarchy!" the captain and Putz burst out together.

"That's right."

"But—" Harrison was sputtering. "What do you mean—they're ahead of us? Anarchy! Bah!"

"All right—bah!" retorted Jarvis. "I'm not saying it would work for us, or for any race of men. But it works for them."

"But—anarchy!" The captain was indignant.

"Well, when you come right down to it," argued Jarvis defensively, "anarchy is the ideal form of government, if it works. Emerson said that the best government was that which governs least, and so did Wendell Phillips, and I think George Washington. And you can't have any form of government which governs less than anarchy, which is no government at all!"

The captain was sputtering. "But—it's unnatural! Even savage tribes have their chiefs! Even a pack of wolves has its leader!"

"Well," retorted Jarvis defiantly, "that only proves that government is a primitive device, doesn't it? With a perfect race you wouldn't need it at all; government is a confession of weakness, isn't it? It's a confession that part of the people won't coöperate with the rest and that you need laws to restrain those individuals which a psychologist calls anti-social. If there were no anti-social persons — criminals and such—you wouldn't need laws or police, would you?"

"But government! You'd need government! How about public works—wars—taxes?"

"No wars on Mars, in spite of being named after the War God. No point in wars here; the population is too thin and too scattered, and besides, it takes the help of every single community to keep the canal system functioning. No taxes because, apparently, all individuals coöperate in building public works. No competition to cause trouble, because anybody can help himself to anything. As I said,

with a perfect race, government is entirely unnecessary."

"And do you consider the Martians a perfect race?" asked the captain grimly.

"Not at all! But they've existed so much longer than man that they've evolved, socially at least, to the point where they don't need government. They work together, that's all." Jarvis paused. "Queer, isn't it?—as if Mother Nature were carrying on two experiments, one at home and one on Mars. On earth it's the trial of an emotional, highly competitive race in a world of plenty; here it's the trial of a quiet, friendly race on a desert, unproductive, and inhospitable world. Everything here makes for coöperation. Why, there isn't even the factor that causes so much trouble at home—sex!"

"Huh?"

"Yeah; Tweel's people reproduce just like the barrels in the mud cities; two individuals grow a third one between them. Another proof of Leroy's theory that Martian life is neither animal nor vegetable. Besides, Tweel was a good enough host to let him poke down his beak and twiddle his feathers, and the examination convinced Leroy."

"*Oui,*" confirmed the biologist. "It is true."

"But anarchy!" grumbled Harrison disgustedly. "It *would* show up on a dizzy, half-dead pill like Mars!"

"It'll be a good many centuries before you'll have to worry about it on earth," grinned Jarvis. He resumed his narrative.

"Well, we wandered through that sepulchral city, taking pictures of everything. And then—" Jarvis paused and shuddered—"then I took a notion to have a look at that valley we'd spotted from the rocket. I don't know why. But when we tried to steer Tweel in that direction, he set up such a squawking and screeching that I thought he'd gone batty."

"If possible!" jeered Harrison.

"So we started over there without him; he kept wailing and screaming, 'No—no—no! Tick!' but that made us the more curious. He sailed over our heads and stuck on his beak, and went through a dozen other antics, but we ploughed on, and finally he gave up and trudged disconsolately along with us.

"The valley wasn't more than a mile southeast of the city. Tweel could have covered the distance in twenty jumps, but he lagged and loitered and kept pointing back at the city and wailing 'No—no—no!' Then he'd sail up into the air and zip down on his beak directly in front of us, and we'd have to walk around him. I'd seen him do lots of crazy things before, of course; I was used to them, but it was as plain as print that he didn't want us to see that valley."

"Why?" queried Harrison.

"You asked why we came back like tramps," said Jarvis with a faint shudder. "You'll learn. We plugged along up a low rocky hill that bounded it, and as we neared the top, Tweel said, 'No breet', Tick! No breet'!' Well, those were the words he had used to describe the silicon monster; they were also the words he had used to tell me that the image of Fancy Long, the one that had almost lured me to the dream-beast, wasn't real. I remembered that, but it meant nothing to me—then!

"Right after that, Tweel said, 'You one-one-two, he one-one-two,' and then I began to see. That was the phrase he had used to explain the dream-beast, to tell me that what I thought, the creature thought—to tell me how the thing lured its victims by their own desires. So I warned Leroy; it seemed to me that even the dream-beast couldn't be dangerous if we were warned and expecting it. Well, I was wrong!

"As we reached the crest, Tweel spun his head completely around, so his feet were forward but his eyes looked backward, as if he feared to gaze into the valley. Leroy and I stared out over it, just a gray waste like this around us, with the gleam of the south polar cap far beyond its southern rim. That's what it was one second; the next it was—Paradise!"

"What?" exclaimed the captain.

Jarvis turned to Leroy. "Can you describe it?" he asked.

● The biologist waved helpless hands. *"C'est impossible!"* he whispered. *"Il me rend muet!"*

"It strikes me dumb, too," muttered Jarvis. "I don't know how to tell it; I'm a chemist, not a poet. Paradise is as good a word as I can think of, and that's not at all right. It was Paradise and Hell in one!"

"Will you talk sense?" growled Harrison.

"As much of it as makes sense. I tell you, one moment we were looking at a grey valley covered with blobby plants, and the next—Lord! You can't imagine that next moment! How would you like to see all your dreams made real? Every desire you'd ever had gratified? Everything you'd ever wanted there for the taking?"

"I'd like it fine!" said the captain.

"You're welcome, then!—not only your noble desires, remember! Every good impulse, yes—but also every nasty little wish, every vicious thought, everything you'd ever desired, good or bad! The dream-beasts are marvelous salesmen, but they lack the moral sense!"

"The dream-beasts?"

"Yes. It was a valley of them. Hundreds, I suppose, maybe thousands. Enough, at any rate, to spread out a complete picture of your desires, even all the forgotten ones that must have been drawn out of the subconscious. A Paradise—of sorts! I saw a dozen Fancy Longs, in every costume I'd ever admired on her, and some I must have imagined. I saw every beautiful woman I've ever known, and all of them pleading for my attention. I saw every lovely place I'd ever wanted to be, all packed queerly into that little valley. And I saw — other things." He shook his head soberly. "It wasn't all exactly pretty. Lord! How much of the beast is left in us! I suppose if every man alive could have one look at that weird valley, and could see just once what nastiness is hidden in him—well, the world might gain by it. I thanked heaven afterwards that Leroy—and even Tweel—saw their own pictures and not mine!"

Jarvis paused again, then resumed, "I turned dizzy with a sort of ecstasy. I closed my eyes—and with eyes closed, I still saw the whole thing! That beautiful, evil, devilish panorama was in my mind, not my eyes. That's how those fiends work—through the mind. I knew it was the dream-beasts; I didn't need Tweel's wail of 'No breet'! No breet'!' But — *I couldn't keep away!* I knew it was death beckoning, but it was worth it for one moment with the vision."

"Which particular vision?" asked Harrison dryly.

Jarvis flushed. "No matter," he said. "But beside me I heard Leroy's cry of 'Yvonne! Yvonne!' and I knew he was trapped like myself. I fought for sanity; I kept telling myself to stop, and all the time I was rushing headlong into the snare!

"Then something tripped me. Tweel! He had come leaping from behind; as I crashed down I saw him flash over me straight toward—toward what I'd been running to, with his vicious beak pointed right at her heart!"

"Oh!" nodded the captain. *"Her* heart!"

"Never mind that. When I scrambled up, that particular image was gone, and Tweel was in a twist of black ropey arms, just as when I first saw him. He'd missed a vital point in the beast's anatomy, but was jabbing away desperately with his beak.

"Somehow, the spell had lifted, or partially lifted. I wasn't five feet from Tweel, and it took a terrific struggle, but I managed to raise my revolver and put a Boland shell into the beast. Out came a spurt of horrible b l a c k corruption, drenching Tweel and me—and I guess the sickening smell of it helped to destroy the illusion of that valley of beauty. Anyway, we managed to get Leroy away from the devil that had him, and the three of us staggered to the ridge and over. I had presence of mind enough to raise my camera over the crest and take a shot of the valley, but I'll bet it shows nothing but gray waste and writhing horrors. What

we saw was with our minds, not our eyes."

Jarvis paused and shuddered. "The brute half poisoned Leroy," he continued. "We dragged ourselves back to the auxiliary, called you, and did what we could to treat ourselves. Leroy took a long dose of the cognac that we had with us; we didn't dare try anything of Tweel's because his metabolism is so different from ours that what cured him might kill us. But the cognac seemed to work, and so, after I'd done one other thing I wanted to do, we came back here—and that's all."

"All, is it?" queried Harrison. "So you've solved all the mysteries of Mars, eh?"

"Not by a damned sight!" retorted Jarvis. "Plenty of unanswered questions are left."

"Ja!" snapped Putz. "Der evaporation—dot iss shtopped how?"

"In the canals? I wondered about that, too; in those thousands of miles, and against this low air-pressure, you'd think they'd lose a lot. But the answer's simple; they float a skin of oil on the water."

● Putz nodded, but Harrison cut in. "Here's a puzzler. With only coal and oil—just combustion or electric power—where'd they get the energy to build a planet-wide canal system, thousands and thousands of miles of 'em? Think of the job we had cutting the Panama Canal to sea level, and then answer that!"

"Easy!" grinned Jarvis. "Martian gravity and Martian air—that's the answer. Figure it out: First, the dirt they dug only weighed a third its earth-weight. Second, a steam engine here expands against ten pounds per square inch less air pressure than on earth. Third, they could build the engine three times as large here with no greater internal weight. And fourth, the whole planet's nearly level. Right, Putz?"

The engineer nodded. *"Ja!* Der shteam—engine—it iss *sieben-und-zwanzig* — twenty-seven times so effective here."

"Well, there *does* go the last mystery, then," mused Harrison.

"Yeah?" queried Jarvis sardonically. "You answer these, then. What was the nature of that vast empty city? Why do the Martians *need* canals, since we never saw them eat or drink? Did they really visit the earth before the dawn of history, and, if not atomic energy, what powered their ship? Since Tweel's race seems to need little or no water, are they merely operating the canals for some higher creature that does? *Are* there other intelligences on Mars? If not, what was the demon-faced imp we saw with the book? There are a few mysteries for you!"

"I know one or two more!" growled Harrison, glaring suddenly at little Leroy. "You and your visions! *'Yvonne!'* eh? Your wife's name is Marie, isn't it?"

The little biologist turned crimson. *"Oui,"* he admitted unhappily. He turned pleading eyes on the captain. "Please," he said. "In Paris *tout le monde*—everybody, he think differently of those things—no?" He twisted uncomfortably. "Please, you will not tell Marie, *n'est-ce pas?"*

Harrison chuckled. "None of my business," he said. "One more question, Jarvis. What was the one other thing you did before returning here?"

Jarvis looked diffident. "Oh—that." He hesitated. "Well, I sort of felt we owed Tweel a lot, so after some trouble, we coaxed him into the rocket and sailed him out to the wreck of the first one, over on Thyle II. Then," he finished apologetically, "I showed him the atomic blast, got it working—and gave it to him!"

"You *what?"* roared the Captain. "You turned something as powerful as that over to an alien race — maybe some day an enemy race?"

"Yes, I did," said Jarvis. "Look here," he argued defensively. "This lousy, dried-up pill of a desert called Mars'll never support much human population. The Sahara desert is just as good a field for imperialism, and a lot closer to home. So we'll never find Tweel's race enemies; the only value we'll find here is commer-

cial trade with the Martians. Then why shouldn't I give Tweel a chance for survival? With atomic energy, they can run their canal system a hundred per cent instead of only one out of five, as Putz's observations showed. They can repopulate those ghostly cities; they can resume their arts and industries; they can trade with the nations of the earth—and I'll bet they can teach us a few things," he paused, "*if* they can figure out the atomic blast, and I'll lay odds they can. They're no fools, Tweel and his ostrich-faced Martians!"

THE END

Omega

By AUGUST W. DERLETH

Bowed by the weight of earth's generation,
He stands alone
To face cosmic, racial isolation —
An image of stone.

A shrunken, beaten creature,
Spawn of no known clan —
Yet dimly lines of feature
Identify him: Man.

He stands alone against a dying world,
While the red ball of the sun
Draws back the light, like a curtain furled
Upon a world where life is done.

New Metal Found in Meteors Called Aid to Chromium Plating Industry

NEWARK, N. J., Aug. 11 (A.P.)—A report that a new metal has been extracted from meteors was made last night in a report prepared for the Newark branch of the American Electroplaters Society by Dr. E. A. Smith of Secaucus, N. J., and Mr. M. E. Steinbach of Newark.

The metal was not described in detail. But it was intimated as *something atomically heavier than uranium, now the heaviest of all known elements, and as radioactive.*

This description indicates that the meteor metal is considered by its finders as a break into a new field of substances, comprising heavy elements whose existence was generally doubted until recently.

The meteor metal was mentioned in a discussion of improved methods of chromium plating.

"A future paper," the report stated, "will also describe a new but hard and brilliant metal, recently discovered and extracted from several meteorites. This new higher atomic radioactive element is under rigorous examination in the laboratories of the Universal Research Corporation (of Secaucus), where encouraging results have been obtained for plating purposes.

"A great improvement in chromium plating is foreseen, if a small portion of the new unnamed metal is added to the solution. We do not want to make any predictions on the future possibilities until final decision is reached after our experiments are completed. Nevertheless, we have recently observed that the ductility of a chromium coating may be considerably improved by alloying with nickel and by depositing alternate layers of the new metal and chromium."

—Submitted by EVERETT JOHNSON.

(Illustration by Paul)

The alien horde watched the battle of the giants with bated breath.

ONE PREHISTORIC NIGHT

By PHILIP BARSHOFSKY

● With a reverberating roar, a huge torpedo-shaped body leaped up out of the dim steam-laden horizon and came rushing towards a large and rugged island, followed by a fiery tail and leaving behind a trail of falling sparks. The piercing rays of the noonday sun picked up bright reflections from the surface of the hurtling metal monster. They also showed that the strange visitor bore orange and green markings. The noisy arrival had four rounded, metal "fins" that made it appear like some great arrow afire. The fins all began at the blunt prow ending in a slope against the side of the craft, and appeared to be used as observatories with perfectly transparent ends.

The rear part of the rocket-ship sprouted many propulsion tubes. These now rocked the quiet waters with a thunderous concussion. From the center of the blunt nose and the under and side parts, there also extended short tubes to be used in maneuvering the space craft.

The island, its destination, which was surrounded by almost a world of water, (being about the only piece of habitable land on the planet) bore gigantic growths that towered toward the large, blazing red sun. Its surface shook to the heavy footfalls of frightfully crude creatures, that seemed to be some grim experiment of Nature.

Amid heartbeats of thunderous noises, the rocket-ship shot down toward the foliage-covered ground and skimmed over the green tops. Upon reaching an open space where trees and ferns had surrendered the ground to a wide patch of sand, it landed in a burst of fire that somewhat softened its earthward plunge.

At the immediate silence of the ship's propulsion tubes, other noises quickly became perceptible. Strange noises that having been drowned out at the ship's arrival, now rose vigorously into the humid air. From far and near came the hissing and shrieking of monstrous reptiles—reptiles that infested and reigned supreme on this world millions of years ago. Millions of years ago, in the Jurassic period, they lived—a span of years which took up about six per cent of the life on the earth.

The heavy landing of the space-ship shook the ground, and before long a group of tall trees hid the approach of an inquisitive allosaurus, that behind the outermost fringe of trees came to a rest. With its comparatively small but strong forelegs, which rarely, if ever, touched the earth, it grasped a tall, thin tree to balance itself, while it gazed hesitantly upon this strange being.

The reptile carnivora seemed to pay not the slightest notice to a large rent in its side, from which blood freely flowed.

● Ever since the publication of "When Reptiles Ruled" by Duane N. Carroll in our January issue of this year, we have received dozens of letters from enthusiastic readers clamoring for more tales of the prehistoric earth—of the days when the mighty dinosaur and his kin roamed the world supreme—gigantic creatures whose every step shook the earth with fearful reverberations, monsters more fantastic than the imaginings of science-fiction authors, yet who really existed.

Indeed, we receive all-too-few stories of this nature and therefore are very pleased to publish this vivid tale of the world a million years ago.

But a new note is added. Not only do we see the ancient monsters in their struggle for existence, but also how we today owe our existence to them. This may seem puzzling to you, but read the story and learn a very probable episode—unimportant to the reptiles that participated, but of vital consequence to a race yet a million years in their future.

Now and then it turned its head sidewise like a bird to eye the uneven ground, as if it awaited the earth to betray, by its involuntary tremors, the approach of some creature that the cold-blooded reptile could better understand than that large egg-like thing. Overhead a shrilling archaeopteryx, partly hidden by the fogs that rose from the warm earth, attracted the momentary gaze of the huge sentinel. Not knowing whether to brave the sudden terrific heat, which the fires of the rocket-ship had created, or to abandon the glittering, quiet thing before it and hunt elsewhere, the monster stood for a moment perplexed.

Suddenly, in its dilemma, the hungry allosaurus felt the ground vibrate to the dancing feet of some prehistoric combatants that fought for life and food. That signal decided the question. Instantly the short-witted reptile forgot the metal arrival as it turned and made off in the direction of the battle. A sole breeze wafted to its nostrils the enticing odor of blood that had already been carelessly spilt.

With its powerful hind legs, which were almost as long as its body, allosaurus leaped in tremendous bounds, covering ground with amazing speed as a frothy, white foam fell from its long, hissing jaws. Already the dying screams of one of the combatants pierced the air.

The ground heaved and trembled as from all over creatures hurried toward the scene of the battle. Soon the foggy air was filled with the shrilling and screaming of the hungry monsters of an infant planet.

Animals mostly of a smaller type crowded and soon filled a small clearing that was made by the careless fighters in their efforts. Many small individuals were crushed to death beneath the ponderous feet of their larger brothers in the rush for food, and provided another mouthful or so. Here an angry reptile tore into bits a small scavenger that stole a piece of meat from its possession, and in doing so added to its meal. From above, powerful jaws snapped off its head in turn. Thus more meat was provided.

Usually the smaller creatures grabbed a bit of meat and dashed off with it, fearful of losing it to some larger animal, while the larger creatures remained, surer of their ground. As the noises increased in volume, hungry mouths fed and empty bellies became filled.

● Slowly the blood-red sun set, leaving the steaming forests solely in the possession of the noisy dinosaurs that were the inhabitants. The metal alien lay beneath the subdued glare of the stately moon. With the parting of day, a round door, close to the ground, slid aside and an amazingly small creature stepped out, the door closing immediately behind it. The four-foot arrival, without any noticeable form of physical defence, could hardly have been any more than a mouthful for any of the giant preying carnivora.

An orange skullcap covered a large head from two beedy eyes set under a high forehead, to the back of a short, thick neck. Two pairs of arms and one pair of legs betrayed the fact that this creature had probably evolved from some six-legged creation. A thin green metal tunic covered the remainder of the short body. From a thick black belt, two blunt hooks supported a like number of small, round tubes, and one of the thin arms always hung near them. The little being seemed ready for any form of attack as its watchfulness plainly showed.

The strange creature whistled a few notes which, explained, would read as, "Come out. It is cooler than when the sun shone."

As the door again opened, another and a third of the like species stepped out slowly, hesitantly. They formed a silent group not far from the space-craft, while they gazed up at the planet Mars, hanging like a crimson jewel in the sky. One began to whistle, he who had first stepped forth from the ship.

"Our mother planet. See how she looks at us with a burning eye."

"From here we cannot see the misery on the faces of our people," answered he who had first stepped out after the whistle.

"Yet," the first one whistled, "that bright world will soon be uninhabitable, and might have been the death of our race had we not discovered this more inhabitable world.

"Our scientists were right when they explained that this planet wouldn't be too hot for us; and everyone thought we should roast here. Its daylight cannot be much hotter than its night, so as far as heat is concerned, this planet will suit us."

A silence reigned, pierced by reptilic yells from the outside, to which these creatures paid no attention. Each was enveloped in his own thoughts—tremendous thoughts. A world was dying and a desperate race sought a more habitable place, one where their lives would not be endangered. Now a suitable planet was discovered, one that would safely harbor their race. But what form of life existed on this planet?

In a happy frame of mind, the third creature whistled a series of short notes.

"The atmosphere is pure and innocent in composition here, free from any form of contamination which years of needless warfare caused on our world. The ocean water can be utilized by our motors and the ever-rising steam can be caught and condensed to drinkable liquid, being of the same composition that we are used to. The soil is very active, and as for the greater gravity, these specially constructed black belts will take care of that until we become more accustomed to it.

"At the rising of the sun, we will plant the seeds of the wonderful quanghnni tree and some others to see if they bear on this soil the same good, sweet fruit that they bear on Mars. Soon we will fortify ourselves, for who knows what creatures inhabit this world, and at the first hours of dawn, our space-ship will go back to our own planet with the glad tidings, leaving a small colony here to prepare this place for our entire race. This I overheard our Commander tell the chief pilot after we had landed and made the tests."

Having had enough of star-gazing, they looked around them and into the deep, dark forests from which they heard issue loud animal noises, the first being again whistled, betraying solid confidence.

"What have we to fear of noisy, lowly beasts; we are well armed and can surely defend ourselves against brainless animals," and he touched the tubes that hung from the black gravity-belt. Then he added, "Come, now it is time to awaken the others so they will immediately begin preparing our fortifications."

● In the hours of darkness, the machines contained in the sky-flier hummed with vibrant activity. Work went on also on the outside of the alien metal monster.

A wire barrier conducting thousands of volts of electricity had been thrown up and it now encased the sandy landing field. The uppermost wire was suspended about twenty feet above the ground and ran through insulated metal posts that had been taken out of the sky vehicle.

Large circular holes were dug as the preparations for a metal fortress. Gangs of these strange beings worked in orderly confusion within the wire enclosure. A few stiff guards stood nervously listening to the strange, noisy goings-on outside of their electrical protection.

Thick, insulated wires were connected onto the wires on the enclosure and led to large digging and welding tools of various shapes. One of the digging tools threw sand in a steady stream into a large container, while it bored deep into the ground with a group of metal bars, the ends of which resembled a bent shovel. Its actions rivaled those of a dog digging for a buried bone.

But if those within the electrical wall showed extreme activity, so too, creatures on the outside of the wall were active, although the survival of their specie did not depend on them, which was not the case with the desperate Martians.

A couple of miles away, two yelling reptiles fought, one for food, the other for life itself. A large, noisy thunder-reptile, a mountain of living flesh, was trying desperately to defend itself from a bloodthirsty, screeching allosaurus. The former,

a herbivorous reptile that dwelt mainly in the fresh waters of the island because of its bulky thirty-five tons, was hissing angrily at its agile harasser. Caught away from its favorite haunts, it was almost helpless against the smaller but more energetic carnivora. Because of the construction of its body, the herbivorous reptile was not made for too-active movements on land; therefore it tried to reach water, in which it would be safe from Dinosaur Allosaurus.

With a reptilic scream, as if tired of it all, it suddenly turned, almost bowling over its dancing opponent with its long, muscular tail which was easily a third the length of its entire body, and made off in the direction of a large, muddy lake. Screeching, the fremendous carnivora bounded along after it. The ground shook beneath their weight, as both disappeared noisily into the dank forest.

A lumbering, yet more agile diplodocus, a herbivorous reptile resembling the huge brontosaurus or thunder-reptile, but more slenderly built and with an exceptionally small head, made its way through the forest, accidentally stepping on a small reptile in its path, that was a bit too slow in escaping. A tiny bunch of broken bones, well squashed into the soft ground, was all that remained as the monster passed, as mute evidence of some insignificant tragedy. Quietly the reptile passed on, oblivious to the damage it had wrought. It, too, made its way to an inland body of water. Before it had reached its destination, it stopped to eat some young, luscious growth, wholly forgetful of such a thing as water.

Here and there the beaten underbrush and broken trees attested to some vigorous battle that had reigned. Large insects flew or ran along the forest floor looking for food or prey. Everywhere it was hunt or be hunted, and sometimes both. It was miraculous how any of the creatures managed to grow to maturity.

Near a large swamp, hordes of tiny reptiles that had recently emerged from their eggs played and ate together. These little cold-blooded bodies ran noisily, squeaking as if joyful of being alive. They eagerly devoured slow, clumsy insects and small growth. Sometimes a miniature combat arose, in which two small reptiles bit, scratched, and tumbled in the soft, warm ground. At the approach of their larger brothers, they scattered, hiding beneath the plentiful growth, their baby-hissing lost in louder noises. Suddenly a large insect, with snapping mandibles, snatched up a baby reptile and disappeared with it writhing in its iron clutch. Not one of the small reptiles seemed to notice or care about its sudden departure.

Not far from this natural incubator, a fleeing morosaurus dashed into the ocean that washed a loamy shore, to escape from a large flesh-eating monster. Silently it swam along the edge of the water, hoping to lose its pursuer that was afraid of the salty water, persistently following its course on land.

Suddenly the pursued set up a tremendous shrilling; a gigantic shark had bitten its long tail into three pieces, one of which remained in the fish's cavernous mouth, while a second and third floated free, the center of a large and widening red spot. Kicking frantically, the morosaurus fell over on its side, while its long neck remained upright. Its yells rang clear and loud, as with the bloody stump of its tail it was unable to reach the land, and if it did, the hungry carnivora eagerly awaited it.

The dying reptile began to turn and heave as numerous preying fish assailed its body, tearing off huge chunks of meat. Yelling, the disappointed carnivora on the land gobbled up a dead fish that had floated in toward the shore, and disappeared in search of less elusive prey, clumsily stepping on three insect gladiators in its path.

Although morosaurus never swam the dangerous waters of the ocean, instinctively preferring the inland bodies of water, its minute brain had decided to chance the ocean rather than certain death at the jaws of the reptile carnivora. Now, however, at the expense of its life, it learned why it had always shunned the ocean.

● Back within the Martian wire protection, the alien preparations still went on. Already large green metal stems, embedded in the large circular holes in the ground, supported a thin metallic platform, upon which stood a sentinel near a thick, stationary electron-gun. Above, the skeleton of the second platform was being erected. In two metal huts reposed concentrated supplies. A third hut was being thrown up. Three great electric lights illumined the amazing scene.

A tall, round structure that was partitioned into many cubicles would serve as housing for the small Martian colony that was going to remain. Three digging machines tore holes deep into the earth, then some Martians, carrying small containers, turned small dials on their black gravity-belts and fell slowly into the holes. Chemical tests of the ground were being conducted.

Nearby, a group of these intelligent aliens were cutting small growth and testing them with many forms of apparatus. Small successes brought whistles from the workers. Insects, and even a small reptile was not safe from their prying compounded eyes. After they had made a thorough examination of the creature's external appearance, they cut it open, much to the embarrassment of the writhing reptile.

Everything was as methodical as if it had all been prepared in advance, and every Martian knew exactly what he was to do. Tirelessly the alien horde labored on, struggled to make this planet, yet in its infancy, theirs—plans that thwarted those of Nature.

With surprise, the unearthly being felt a new vibration in the ground, one that didn't come from their machinery. The earthly tremors became more distinct; the creature that was the cause of this new note in the ground was apparently approaching them.

Although the workers labored on, they looked up more frequently and the armed guards became more tense. Their three-fingered hands rested on the heat-ray tubes, ready for instant action.

From the nearby trees, a serpent-like head and neck appeared, and as the forest giants swayed, a large, massy body waded through their midst. The bright electric lights shone on a hill of crude and bumpy flesh. Tiny eyes in a ridiculously small head held some twenty-five feet above the ground, peered down on these aliens of a different world.

Brontosaurus advanced to "meet" these creatures. A machine set on the head of one of the Martians hummed, then stopped at the turn of a switch.

"No thoughts," the wearer whistled.

This was the signal for dozens of heat-ray tubes to flash into instant action. Brilliant purple lights stung the body of the forty-ton thunder-reptile. Hundreds of black burnt spots appeared on the surface of its body. Hissing angrily, it stepped up to the wire barrier.

Instantly the guard on the metal platform whistled a loud note as he stuffed something soft and fluffy into a crevice in the side of his head. The horde of Martians below did likewise. No sooner had they finished than the stationary gun thundered into action, for the puny heat-rays seemed not to affect the attacking reptile at all, and their wire protection, a vital necessity, was being threatened.

With a stupendous roar that absolutely rocked the surrounding forest and caused hundreds of creatures to fall where they stood, an invisible stream of electrons shot out of the muzzle of the gun, striking the huge brontosaurus, just as it was about to crash the puny wire safety. The reptile halted in its tracks. Its mouth opened to howl in agony, but no sound issued forth from that gigantic throat. Its body began to change visibly to a greenish color. It began to shiver. Then, from a terrible dinosaur, Brontosaurus became a mass of struggling green worms!

At the metamorphosis, the thunder of the electron gun ceased, and the sudden silence seemed unearthly. But then reptilic noises began again to fill the humid air.

A soft plump, and the green mass fell onto the wires and a large, brilliant flare

lit the surrounding forest. The hot wires electrocuted the alien mass and transformed them to pieces of blackened cinders. The thunder-reptile had died as a horde of unearthly green worms.

The electron gun, which released a flow of loose electrons, caused in organisms violent molecular metamorphosis that changed completely the organism, often forming, if properly adjusted, from one individual, many living organisms. Inorganic compounds were also transformed, if enough power was applied, by this amazing gun.

The weight of the fallen worms had broken a set of wires that had almost short-circuited the electric current. The mending of the broken wires began at once.

One of the workers began to whistle in a disgusted tone, "And we had to fly three-fourths of this planet to come to all this"; he had cut a great gash in his thin arm by accident. A blue liquid gushed to the surface of the hurt appendage.

On Mars the air was so thin that its inhabitants had to whistle, piercingly and shrilly, to make themselves heard. After ages of shrill whistling, their hearing organs had become permanently attuned to high tones and thus many low, earthly noises went by them unnoticed.

No one answered this sally of the injured Martian, which they knew was brought on by pain. But one creature that stopped its digging machine for a moment felt that if it did not express its opinion, it would most certainly burst.

"Yet it is the best that we could find. We never really expected to find this world habitable for us; and it even has meat in tremendous abundance although the vegetable matter is unfit for food. We are safe from death here, and our young will grow up happily. Is that not better than a lingering death on Mars?"

One who mended a broken wire whistled in gleeful tones, "Yes, it certainly is better, and much more so. We will establish the first colony on this planet, but soon our entire race will be here. Then will come my little family, and all will be well. We will then be safe from death. Can not that be worthy of our most desperate efforts?"

A guard who was recharging his heat-ray tube turned the high-pitched conversation into a new channel. "I wonder how the scouts to the other two planets fared?"

As all the Martians became very busy, no answer greeted his query and the work went on in silence. From nearby, reptiles made the night hideous with their loud yells. Many could not hear, for the electron gun, in tearing loose electrons from special compounds, for the firing charge, had caused such noise as to render them partly or wholly deaf. That, however, wasn't such a serious handicap as most of them could easily detect tremors in the earth to warn them of the approach of any creature, but the animals expressed surprise at the novelty of their new physical condition.

● Again the earth announced the approach of some monstrous visitor and the Martians again became tensed. A smaller monster appeared on the fringe of the forest. The thought-transmitter again betrayed the fact that the confronter was of some low order.

The forty-foot morosaurus gazed not on the six-limbed aliens; they were only tiny reptiles to it, reptiles that must stand off reverently at its approach, but the queer, round space-craft held its gaze. Was it some egg? Maybe it was good to eat!

The Martians, not caring to have anything to do with such monsters, hoped that the curious reptile would depart, or at least leave them unmolested. It was not a show of intelligence to waste ammunition on creatures that caused no harm. But the guards kept a steady eye and a tense arm on their heat-tubes, ready, if the morosaurus became too inquisitive.

"See," a Martian whistled, "it has a large head and is itself much smaller than the other one was. Does it also want to investigate our little nest?"

Without warning, two creatures simultaneously appeared on the sandy ground,

but from different directions. So engrossed had the Martians been in Morosaurus, that except for the vigilance of a guard, they would not have noticed the approach of the two new visitors. Now all eyes turned toward them, and the trio was carefully inspected for any signs of uncontrollable curiosity in the "nest" of the Martians.

Each visitor had a different purpose in view. The allosaurus had scented the morosaurus and was hungry for meat. The grotesque stegosaurus was hurrying to its favorite grazing grounds and it habitually crossed this particular piece of land.

The reptilic monsters never seemed to rest. The heat at night, coming from the warm earth, kept them awake and, in the daytime, the hot sun kept them especially active. They must have rested, if they ever did, when and where the desire seized them.

With a scream of triumphant hunger, the allosaurus leaped at the morosaurus, which had turned to defend its lengthy carcass. Its head shot out and powerful jaws snapped at the hungry carnivora, biting off a piece of flesh from its chest. Screaming, the two circled wryly, each seeking an advantageous hold. Their ponderous steps thumped the soft ground, while the awed Martians gazed on a battle supreme.

Although morosaurus was herbivorous, he did not seem to mind a bit of meat, if it could be obtained. His microscopic brain did not warn him of the danger it took in order to get this titbit, hence it undertook a battle with the reptile carnivora.

Morosaurus' long tail swept and mashed the undergrowth, while its pounding feet broke stems and crushed them into the ground. The bodies of the two prehistoric giants broke trees and pounded the ground unmercifully. The earth reverberated to their dancing, and wherever they were, creatures of every sort knew that a noble battle was going on.

Snapping, biting, tearing, and screeching, the combatants tore the night with their gigantic efforts. They both tumbled on the ground, their bodies breaking trees with loud snaps, in prehistoric clinches. Always they separated, streaming blood, but otherwise unharmed—apparently. The carnivora's powerful legs tore at the herbivorous reptile, while the latter's tail kept the former busy, and sometimes landed stinging blows. The stomach of allosaurus was becoming impatient when his chance came.

● While the battle had been raging, the stegosaurus, before any of the Martian guards could attempt to stop it, had, in sudden fear at the approach of some creature behind it, plunged into the electrical wiring, and with a horrid scream, became a charred mass of flesh and horny plates, while it pulled down a few lines of wiring in its fall.

Shutting off the current, the Martians set immediately about repairing the new break in their wall, while the remainder kept interested eyes on the battling pair, hoping that in their efforts they would keep away from the wire wall.

Not in their wildest dreams had the Martians imagined the existence of such monsters. They knew that against such creatures, if they attacked in unison, their weapons would be useless and they themselves would be slaughtered without the slightest hesitation on the part of their reptilic attackers. Yet their case was desperate, and though they had one electron gun, they had come prepared for emergencies and had brought parts for another one. The electron gun seemed to be their only weapon strong enough to hold off the reptilic monsters of this world.

With this in mind, one of the Martians uttered a series of low whistles and a small body of Martians detached themselves from the group of on-lookers and entered the space-rocket, where there were motors that would aid in assembling another electron gun.

At the scream of the stegosaurus, the morosaurus, in sudden surprise, turned its head. That gave the hungry allosaurus its chance and it leaped to the side of its

herbivorous combatant. As morosaurus turned back its head, the allosaurus, with a scream, leaped astride its opponent, almost breaking its back in the fall.

Instantly the herbivorous monster turned its head to bite at the carnivora, which seized the terrifying head in its short forelegs and held it while its powerful teeth sank into its prey's long neck; at the same time its long legs squashed the sides of its opponent. The jaws of the morosaurus locked in a useless flesh hold on the side of the carnivorous fighter. Allosaurus bit large pieces of living flesh from the desperate morosaurus that released its hold so as to seek a better one. At this, the allosaurus' jaws locked in a death clamp near the head of its prey, where the neck was the thinnest.

The alien horde watched the battle of the giants with bated breath. The ground was torn and scarred; the growth was trampled and demolished, almost as well as their mechanism could have done it. But the most harmful effect the battle had caused was the fact that it had brought ever-hungry carnivora and insects to the scene, which was immediately outside their enclosure.

The earth again began to tremble at the weight of approaching creatures whose bellies craved meat—meat that would be found on the dying body of the morosaurus. The herbivorous giant, in its death agony, carried its victorious opponent and itself, on aimless legs, into the wire enclosure; and the wire, which had not yet been mended, carried no electric current.

Interested in the battle and hence unprepared, the startled Martians had expected to see the morosaurus fall dead at least from loss of blood, instead of the two combatants, as one, rushing into their enclosure and up onto their space-ship, causing it to turn on its side.

The allosaurus, seeing the space-craft and supposing it to be more meat, greedily leaped onto the ship, denting its smooth exterior, and crashing the transparent metal used as glass. For a moment it resembled King Kong atop the Empire State Building.

Nowhere, except on the rocket-tubes, could the victorious carnivora find a tooth hold, and as heat-rays burnt black spots on it, the warning was given and hearing organs were again stopped up as the roaring electron gun went, for the second time that night, into reverberating action.

Excepting the thunder-reptile, never had the electron gun had such a huge organic target. Always its target had been some enemy space-ship, or Martian soil had been changed into some useful metal, but such a mountain of living flesh had never before been touched.

After the allosaurus had been transformed into a wriggling pile of green worms, the heat-rays burned the loathsome results. Then a terrifying horde burst onto the sandy clearing, from all sides of the forest—animals. Almost a solid hundred of them faced a puny wire wall. The element of excitement immediately manifested itself in the Martians. They milled around for a moment, nervously preparing for wholesale slaughter.

Cold-blooded monstrosities of various sizes, with empty bellies, faced the alien horde, as if accusing them of trying to wrest from Nature a world that did not belong to them. Not a second did these hungry creatures waste. With one accord they surged forward.

The noise of the battle had not been the only thing that had caused their appearance. All night a steady rumbling in the earth had aroused their excitement, but they could not locate the source. Therefore, many were hungrier than usual as they had wasted many hours in a vain search. Naturally this battle brought up a larger hungry mob of animals than was usual.

Hissing and yelling, they forced their way to the dead, but unchanged morosaurus. After a timely warning to the Martians, the electron gun went once more into a thunderous activity, at which Hell broke loose. The gun easily drowned out all sounds, so it appeared that reptilic mouths opened in silence.

The wire protection, bearing no current, as it had not been mended, disappeared instantly. Had the hungry stampeding mob more brains and less stomach, they would have fled in panic at the terrific din of the gun, but as it was, they fearlessly came on crushing down their own kind.

Magically there appeared amongst them green, loathsome, crawling worms that were instantly pounced upon by hungry insects that the scent of blood also brought. A Martian guard went down as a large flying beetle sank long mandibles into his neck. A tiny reptile carnivora grasped a Martian by a leg and bit it easily off, as the alien being drew himself away whistling in agony. The lights went out and only the light of the moon and stars showed the turmoil that reigned.

Yells of agony, screams of the dying, alien whistles, and the noise of stamping feet were all lost in the clamoring of the electron gun that chose a large creature for a target and transformed it directly. Luckily for the hungry creatures the second electron gun had not a chance of being constructed, for the space-ship had been turned on its side by the rush of the dead morosaurus and the machinery didn't function properly.

Heat guns shone a steady light, cutting, burning, slicing, and killing; but it wasn't enough. The electron gun suddenly stopped its thundering activity; some insect, escaping the notice of the guard, had investigated its inner works and its dead body now hampered the action of the mechanism which had become jammed. As the voice of the electron gun died out, the noise of the triumphant reptiles rose to shrill heights.

A struggling Martian, lost in the midst of fighting animals, was bitten to pieces, and insects pierced his thin skin very easily. His body was finally a mass of blood that attracted the notice of more creatures. A large pile of loathsome green worms fell and smothered a horde of insects that were busily devouring the body of a writhing, small reptile. The body of a dead Martian jerked in various directions as it was torn apart.

Screams of the beastly and whistles of the intelligent intermingled and pierced the air as one. Thrashing bodies filled what had once been an alien landing field. Reptile fought reptile and Martian.

An attempt, by the aliens, was made to get to their ship, but their venture ended in death, sudden but painlessly merciful. Even the impassive moon gasped in awed surprise.

The last group of Martians made their last stand, surrounded by hungry mountains of living flesh. Crowding together in a defensive bunch and facing the outside, they cut a brilliant wall of heat. From above, by means of a tremendous leap from the backs of the surrounding animals, a blood-mad creature fell amongst the Martians and broke their defense.

With the death of her last scout on Earth, the Martian race was destined to believe the third planet from the sun uninhabitable, though they never learned why.

More animals arrived and many battles raged around the body of the strange metal monster of another world. The wounded fled, leaving comparatively few hungry beasts to gorge themselves with a sudden abundance of meat. Over the masses of green, helpless worms swarmed insects of all sizes—earthly insects bent on the extermination of an unearthly specie.

● As usual, the sun rose and, with its usual dignity, glared majestically down on the warm earth. Where in the night there had been an alien electrical barrier, now lay piles of bones and the bodies of dead animals, attesting to the savageness of the inhabitants of an infant planet. Here and there lay the round skull of a Martian, a skull that denoted intelligence —a skull that was a sort of prediction that seemed to foretell of a specie that would, millions of years in the future, rule the earth.

Stupid earthly creatures had preserved the world for earthly intelligence to come æons later.

THE END

THE GROWTH PROMOTER

By PAUL K. CHAPPLE

● "I've a mind to take you across my knee!" Scientist Albert Webster glared at his beautiful ward with an expression composed of equal parts of amusement and irritation. "I send you to the most exclusive and expensive girl's school in the country, and five months later you return to me with the astounding announcement that you wish to stop everything and become an authoress!"

Nada Williams laughed lightly as she sat upon the arm of his chair and affectionately planted a kiss on his gray-fringed bald pate. "But Webbie," she said, "I am already an authoress. My very first story was accepted by *Miracle Tales,* and—"

"All right—all right," sighed the scientist wearily. "You have published a science-fiction yarn and have managed, somehow, to wheedle an unsuspecting editor out of twenty-five dollars. But can you continue to be so lucky? Why must you forsake your schooling? Go on writing, if you wish—but please regard it as only a hobby."

As though to lend finality to his words, Webster drew forth his pipe and commenced to load it. He really disliked having words with Nada, for he loved her as if she were his own daughter. The death of an old acquaintance had rendered the girl parentless at a tender age, he had told her, and Webster had adopted and nursed her through the numerous little ills of infancy, and had watched her blossom into a bewitching young woman. Eighteen years ago she had come under his care. Eighteen years! Could it be poss—

"—such a wonderful honor," Nada was pouting wistfully. "I thought you would be proud of me."

"I *am* proud of you," the scientist vigorously insisted. "That goes without saying.

"But science-fiction—of all things! What, my darling, do you know about science?"

"Not a great deal," admitted the girl, mischievously twining her delicate fingers in his sparse hair, "but that is where *you* and—and your four—er—charming assistants come in. As chief chemist and botanist of the Proctor Research Corporation, you can furnish me with loads of story material and plots and theories and—"

"Ah!" Webster nodded with sudden understanding. He lit his pipe and drew from it for a moment; finally, he looked up into Nada's pleading, expectant eyes and knew that he was defeated.

"What can I do? I suppose I may as well write to your school and ask to have your things sent home."*

Not many months later, Nada Williams gleefully entered her guardian's laboratory.

"I want another idea, Webbie."

Albert Webster looked up from his test tubes and smiled broadly. Sharply, he commanded his four assistants to leave

*The brilliant career of Nada Williams as a leading writer of science-fiction need not be recounted here. No reader of the particular type of literature in which she specialized is unfamiliar with the sparkling wit, pleasing description, and original plotting that characterized her inimitable manuscripts. Nada's elderly guardian, of course, was her adviser on the theories and technical matters upon which her narratives were based; for years he had labored over his formulas and experiments, but it was only in the past decade—through the inspiration of his ward and the able help of his assistants—that he gained recognition through his laboratorical efforts. These "assistants," by the way, were Leo, Mark, Eric, and Karl an amazing group of strong, dull-witted men of uncertain age who faithfully did the scientist's bidding, no matter what the task. They seemed to be permanent parts of the laboratory to Nada; they wore, it seemed, the same soiled smocks year in and year out. Naturally, then, it was impossible for Nada to grow up in such environment without accumulating an interest in things scientific.

To return to the young lady's science-fiction efforts, there is no question but that most of you avid consumers of pseudo-science stories have tried to fathom the disappearance of the Nada Williams tales from your favorite magazine. In this connection, perhaps you will be surprised to learn that the partially completed manuscript of "The Growth Promoter" (A narrative which would have been termed her crowning effort) was willfully destroyed by the brilliant authoress; a certain incident in her young life caused her to never again touch the little portable typewriter which faithfully served her through many a story-writing campaign.

the room; they filed out like bulky robots responding to the turn of a switch.

"What!" exclaimed Webster happily, "Did you sell 'The Plant Men'?"

In answer, Nada produced a small slip of paper from her purse.

"Seventy-five dollars, darling." Impulsively, she threw her arms about his neck. "All this money I am getting is rightfully yours, you know."

Webster laughed.

"Nothing of the kind!" he said earnestly. "You do all the work. I merely give you bare suggestions."

"You're a sweet, sweet, sweet—"

"Yes, I fully realize that," mumbled the scientist; and then, to cover up his confusion: "I believe you want another idea?"

"I'd love one!"

"All right—sit down while I adjust my thinking cap."

Nada took out a small pad and pencil and perched herself on the edge of a laboratory table. Suddenly she discerned an odd, far-away light in Webbie's eyes—a light which she could not remember having seen before. But it vanished as quickly as it had come.

"Nada," began Webster softly, "I think I have an idea which is so unusual that it cannot fail to sell.

"Let us say that a certain scientist discovers a type of ray which is extremely potent in that it very materially speeds up the natural growth of an herb, for example.

"Let our scientist accidentally try his ray on a human infant—"

"What an idea!" interrupted Nada as she busily scribbled the words of her guardian.

"—and perhaps the scientist is able to bring about full physical maturity in the baby in the short space of twenty-four hours. Mentally, of course, the grown infant would be practically mindless, and consequently under the complete hypnotic control of the scientist."

"Wonderful!" cried Nada. "I could have my chief character kidnap a number of babies, apply his—er—'growth promoter,' and make the physically mature infants do whatever he wished!"

"Exactly."

Before Webster could protect himself, his enthusiastic ward embraced him once more.

"Oh, Webbie—*darling!* With all due respect to your former ideas, this one is by far the best you've given me. Why, it might really have happened."

* * *

Nada Williams was determined to make a "big hit" with her new story! She spent months developing it and preparing it for publication. Each sentence and paragraph she constructed and revised with the utmost care. She strove assiduously to produce a literary masterpiece—a tale which surely would make Webbie prouder than ever of his "little girl," as he loved to call her.

She searched the libraries diligently in order to discover if there had ever been instances where several babies had disappeared simultaneously; with such knowledge, she could set the locality of her story accordingly and lend to it the ring of truth.

To her astonishment and interest, such an occurrence had taken place in the village of La Pointe, Wisconsin, about twenty years before. Several infants had mysteriously vanished in the space of a week, and despite the frantic efforts of police and relatives alike, no traces of the children were found. Nada lost little time in carrying her "find" to her adviser.

"Webbie," she burst into her guardian's laboratory eagerly. "I am going to lay my story in La Pointe, Wiscon—"

But the young authoress was suddenly struck dumb; Webster had become oddly pale at her words—a test tube slipped from his trembling fingers and smashed to bits on the floor. The four assistants became motionless; their brute faces were childish, immature in the dimly lit laboratory.

La Pointe—La Pointe. Why had the name shocked Webbie? Why did he

(Continued on page 747)

(Illustration by Winter)

Adjusting my spectacles, I found, to my surprise, that this black spot was a monotrol car of the same model as my own.

TWENTY-FIVE CENTURIES LATE

By PHILIP J. BARTEL

● We have published many stories concerning the likely development of the human race in the future—physical, mental, and moral, and we can safely say that the present tale is one of the best short stories of this type.

This one pertains to the moral side in particular. You will be amused at many of the strange things that take place, especially the definition that the characters of the distant future give to the word "love."

After reading this story, you may think yourself lucky not to be living in the distant past, when men were under-civilized, or in the dim future, when, according to the author, we will be over-civilized.

● Smith - Robert is a "throw-back."

Neither his friends nor his family, the Science-Research Smiths, can understand his strange attitude. All are shocked at his request of the Supreme Council for permission to select his own mate!

For countless generations, Smith after Smith, like the rest of the world, have been content to allow the Eugenics Council to arrange their marriages and supervise the care and education of their children. This is the reason for their remarkable mental development. They lead the world in scientific achievement. Both male and female members are proud of their great strides in science.

In this forty-fifth century of enlightenment, man has substituted machines for almost every premeditated physical movement. Centuries of mental labors have increased the capacity of his brain, but have lessened his agility and atrophied many of his muscles. Cravings for exercise and desires of the flesh have vanished. Concentrated foods in the form of powders and pills, taken by mouth and by hypodermic injections, have discouraged the development of teeth. False sets are now used for adornment alone.

Amidst a world solely interested in the advancement of science, ordinary human feelings are scarce. Only family pride remains.

Individual families have seized control of separate industries, and through the years, their descendants have been taught to serve and rule them. This system of family specialization of science has conquered all personal greed and selfishness. Citizens fear the family patriarch and families are ruled by the state. In the face of custom, an important member of the Jones family showed ancient habits!

Smith-Robert, director of Science-Research Council G-42, is enjoying a well earned rest day at his home. It is situated at the very top of a metal tower in the ultra-modern city of Neonia. His small figure is squatting comfortably in an aluminum chair mounted on rubber-tired wheels.

Time has indeed remolded the human body. Though about thirty-five years of age, Smith-Robert is totally bald. His high, shiny, bulging head resembles an inverted pear. On his eighteenth birthday, his last remaining hairs were carefully removed before he made his scientific début. This date was also important for another reason. He was formally presented to his parents and other interested members of his famous family—presented to his father and mother, but not introduced, as he had really met them once before. But even his great mind wasn't astute enough to remember the date of his birth! For eighteen years he had been carefully trained by the Eugenics council and educated in the profession of his ancestors.

His bulging forehead sharply narrows down to a small hairless chin. The lack

of mastication has greatly handicapped the development of his jaws. His throat is small and smooth, his shoulders narrow. A flat chest and round abdomen complete the description of his torso.

Nature has had no effect upon his hands. They are large and muscular. Constant use has made them supple and strong.

In the soft indirect lighting of his room, his legs are quite invisible. They are small and limp and resemble the tiny flippers of a baby seal. Shrivelled by disuse, they are but ornaments.

Though lacking in many physical powers, Smith-Robert has highly sensitive ears. They catch the tiniest sound. His icy blue eyes are sharp and penetrating. Powerful spectacles assist his sight. Besides his scientific honors, Robert is famous for the creation of a new school. He is popularizing thought transference and direct mind-reading. He is teaching his associates to converse for hours by merely staring into each others' eyes! In appearance, Smith-Robert, bachelor scientist, is greatly like the other male and female citizens of Neonia.

His apartment consists of two chambers—a study and a bedroom. The study has one large window overlooking the city. On both sides of this window are rows of racks containing electrical transcriptions of many technical discourses. These are the successors of the ancient books. Reflectors for the admission of vital ultra-violet rays surround the window. A silver televisor screen occupies an entire panel. The uncovered walls of the room are all of metal. The floor, however, is carpeted with a sound-proof material, over which Robert noiselessly sends his carriage from one object to another.

He visits a corner, where he taps a small key. A jet of water is emitted almost in his face, water that is properly cooled and purified. He quickly crosses to a large closet and removes a few pills. These he swallows with a quick gulp. Robert has partaken of enough food to last him twenty-four hours.

He yawns slightly and enters his bedroom. It has no windows and is absolutely sound-proof. The bed is square in shape and suspended from the ceiling by coiled springs. The lack of all vibration assures complete rest.

Robert fastens his carriage to the bed and, by a dexterous movement of his arms, slides his body on to it. Pulling a feathery cover over himself, he is soon asleep. It is a midday nap, as he hasn't bothered to remove his few clothes. Close-fitting silk garments are universally worn. Snoring hasn't been changed very much by evolution. But for his large bald head, he would resemble a baby peacefully at rest. He seems so puny and helpless.

● Many thoughts disturb his sleep. He stirs restlessly. He reviews the events of the week. All his acquaintances have been astounded at his daring. None can explain why a member of the eminent Smith family, proud and conservative for generations, would care to assume the responsibility of determining the fitness of a mate. Such matters were best handled by the Eugenics Council. Simple tests showed the physical and mental eligibility of candidates for marriage. To attempt these problems alone was considered scandalous.

What puzzles his friends the most is the identity of the female he desires. Since birth, he has been kept from meeting unmarried women. He has been educated solely with men. The law requires that no unmarried citizens were to mix in social or scientific groups. This was done to assure greater ease for the Eugenics Council in selecting proper marriages. After marriage, these restrictions were removed. This rule prevailed even in one's own family. Brothers and sisters never met until after each had wed.

Robert fears his request will not be granted. If his choice was not endorsed by the Eugenics Council, no permission would be given. He has no appeal from the Supreme Council decision.

A slight noise abruptly ends his reflections. It is the visitor's signal. A small counterpart of the televisor screen in his

study is directly opposite his bed. It is now illuminated and a genial face can be seen. A voice is heard in the room.

"Good day, friend Robert. It is I, Jones-Edward, who disturbs your rest. May I come in?"

Robert rises on one elbow and reaches back of his bed. He presses a button and answers in a low voice.

"You are welcome, Edward. Ascend immediately."

After connecting several switches, Robert resumes his conveyance and returns to his study.

As he enters, a panel slides open, revealing an elevator car. Jones-Edward alights in his carriage and his host cordially greets him.

Edward removes his weather hood. Despite the aid of advanced medicine, the lack of solid foods and exercise has caused universal debilitation. All suffer from poor resistance to disease. Every room has to be superheated and air-conditioned. No one would dare to appear outdoors without the protection of a weather hood. These loose-fitting, transparent garments enveloped the entire person from head to heels.

Robert is slightly annoyed. It is considered bad taste to interrupt citizens, uninvited, on their rest-day. This day was sacred to the individual. He wonders what Jones-Edward desires.

CHAPTER II

A Strange Experience

● Jones-Edward outwardly resembles Smith-Robert. Here is no cold-blooded scientist. The Jones family is not particularly interested in the future. New devices and discoveries do not concern them. They live in the glamorous past and in the immediate present. They are historians. Generations of Joneses have recorded the march of events faithfully and carefully. Libraries of ancient volumes are in their care. If called upon, they could refer to their ponderous archives and procure any information required. This profession necessarily has had its effect upon each Jones. Their demeanor was genial. Of all the ultra-modern families, only the Joneses ever smiled. They never worried about the future. Their nonchalant outlook upon life irks their more serious neighbors, but none dare to antagonize them. All desire to be favorably mentioned in their daily records. The Joneses are masters of conversation and repartee. Spectators and critics of life, they are in constant demand as counsellors and advisors. Their Patriarch, Jones-Ronald, is governor of the Supreme Council and is beloved by all. Jones-Edward is the most active collector of gossip in his profession. Like Smith-Robert, he is also a bachelor.

After offering his guest refreshment, Robert asks the reason for the visit.

Edward replies that he has been quite anxious about his friend. Robert's petition to the Supreme Council has greatly disturbed him.

"Dear school-mate," he remarks, "I am concerned about your health. Your refusal to marry on your thirtieth birthday should have aroused my suspicions. The authorities would have insisted upon your marriage if it had not been for the position you hold in your Council of Science. We have known each other for over twenty-five years. Why not confide in an old friend? I visit you on your rest day to see if I may help you."

Robert rapidly moves across the room and turns several valves.

"Edward," he replies, "I will explain all, but first I must be sure of absolute secrecy. If I could tell you about the latest devices developed in our laboratories for eavesdropping, you would even hesitate to think."

He rolls alongside his friend and continues.

"In order to tell my story properly, we will have to return to our school days. It is about twenty years since I met with an accident that has influenced every day of my life. You should recall the incident. We were on an educational tour of in-

spection to the Andean Pitchblende Mines when it happened. For some reason, I was preoccupied, and when the rest of our squadron of monotrols turned down a pass in the mountains, I found myself flying alone amid the icy peaks. I became panic-stricken. As I was about to soar to higher altitudes where I might spy my comrades, I noticed a dark smudge against the gleaming white surface of the snow. Adjusting my spectacles, I found, to my surprise, that this black spot was a monotrol car of the same model as my own. All thought of rejoining my fellow students was driven from my mind. I now only wanted to rescue a fellow traveller. It took but a moment to land next to the anchored car. I saw that it had met with some mishap. Hurriedly donning my weather-hood, I opened a compartment of the car and called aloud, but received no reply. I drew closer and opened the door to the cabin. Luckily, the occupant was wearing a hood, or pneumonia might have finished what the accident had begun. I entered the car and fastened the door behind me. After waiting a moment for the atmosphere to lose its chill, I bent over the still figure and removed the hood. As I did so, I became conscious of the fact that I was trembling. Why, I did not know. An unusual thrill passed over me. This was repeated when I accidentally touched the operator's forehead. When a pair of large brown eyes stared into mine, I became dumb with astonishment. A soft voice inquired who I was, and what had occurred. At first I was bewildered. In our studies, we had met men from every part of the world, but never had I seen anyone like this. Suddenly the thought struck me. Could this be one of the forbidden sex? Was I for the first time in my life gazing upon an unmarried woman? Evidently the same ideas were coursing through her mind, for a dazzling smile came over her face! This was quickly followed by a blush.

"I decided to keep my peace and not admit my discovery, but I had not counted upon my companion. She shyly asked me if I were a man. I admitted it. She told me she had sensed it immediately upon seeing me. I inquired if she were hurt, and how she had come to be on the side of a lonely Andean Peak. She discovered a bruise on the back of her head, but stated that it was not painful. It seems she was attending the Female Division of the Astronomical Observatory at La Scala. Her first solo flight in a monotrol had resulted in air-sickness. Fortunately, she had not been soaring at any great height or she might have been dashed to pieces upon the rocks below, instead of a soft cushion of snow. Before losing consciousness, she had turned off the power and slowed the car's descent. The shock of the fall had been slight.

"Together, we examined her craft for possible damage. The steering apparatus was bent out of shape. Other than this, no harm had been done. I was about to offer to tow her car to the nearest post, when I realized the scandal that it would cause. Both of us would be subject to serious penalties. I decided to attempt to repair the mechanism, so she could continue on her way. She graciously accepted my offer of assistance and we set to work. Unused to such manual labor, we soon tired. It became necessary to rest and refresh ourselves. During these periods of relaxation, we exchanged identities. Her name was Brown-Joan. My respect and admiration increased upon learning that she was of the eminent physicist family. They were famous for their marvelous discoveries in the fields of Astronomy. I found myself curiously examining every detail of her appearance. But for an unusual softness of feature and expression, she might have been a fellow male student. I delighted in her intelligent replies to my questions. In her own branch of science, she was as well informed as I was in mine. Our mutual interest in each other was great. Her face had not acquired the hardness so prevalent in the masculine-like married women I knew.

"When we had finally completed the repairs, an entire day had passed. We had become great friends and decided to brave the anger of the authorities and

attempt to establish some sort of communication. We felt that fate had caused our meeting for some purpose beyond our understanding and we should make every effort to keep in touch with each other. We decided to use General Communications Wave X-253 on certain days of the month. In order to escape detection, we would alternate our identities while conversing. One day I would impersonate a girl friend of hers and at another time she would be a male acquaintance of mine. Such subterfuges could not last forever. Someone was bound to overhear us speak some day and it would be all over between us. A safer method was necessary. It was during these conversations that we developed thought transference by steadily gazing into each other's eyes. After several years of practice, we perfected our methods. The visicast receiver added handicaps but even these were overcome. This is the reason for my proficiency in mind-reading." Robert stops for a moment.

Edward reaches over and presses his friend's hand.

"Robert," he says, "I deeply sympathize with you. I can see that both you and your friend will have great trouble in overcoming your difficulties. If I can help you, please don't hesitate to call on me."

"Thanks, Edward," replies Robert, "I sha'n't forget your kind offer. It all seems so strange to me. While I have not been neglecting my work all these years, my rest periods and even my councils have been disturbed with thoughts of Joan. I can't explain my feelings. Nothing we were taught at the laboratories or lecture halls ever bordered on these sensations. I sometimes wonder if I am afflicted with some disease."

● Edward smiled. "I fear you are right, my friend. In my researches through the distant past, thousands of years before our enlightened era, I've come across what I believe is your illness. Our ancestors of the early nineteenth and twentieth century called it 'romance.' A strange word, is it not? But no stranger than one of its annoying results. A victim of this affliction quickly developed a complication which the ancients termed 'Love.' This, in light cases, caused a dulling of the senses and a great loss in self-confidence. In its severest stages, death by suicide was often the result. For some unknown reason, persons under the age of thirty were more susceptible than older men and women, although there were many exceptions. Perhaps this is why the Eugenics Council in their infinite wisdom prevents the association of unmarried men and women. I suggest that you keep your affliction a secret, until we can find out more about it."

Robert eagerly absorbs every word of this discourse.

"But tell me," he begs, "what was the remedy for this ailment? Surely their scientists must have discovered some cure?"

"Of course there was a cure. It wasn't infallible, but only a slight percentage failed to recover. Your instinct, Robert, has whispered the cure to you. It is marriage. The ancient narrators unanimously agree that the marriage of the afflicted removed all evidence of the disease almost immediately."

"But Edward," impatiently interrupts Robert, "What do you mean by marriage? Marriage to whom? Even if the Supreme Council grants my plea, what is my next step?"

"How silly of me; I neglected to explain that this malady usually developed when a male and female were thrown into each other's company for a certain length of time. My respected ancestors who covered this subject carefully outlined several experiments. In almost every case, it was necessary to marry the original couple to each other for the treatment to be successful. Where a couple were married to others, the cure was not lasting. Strange to relate, it was important that the patients be consulted as to their choice. In other words, victims of this epidemic were given the privilege of choosing their own mates!"

"Without doubt, I am suffering from that same malady," Robert remarks. "The symptoms are identical." He relaxes in his carriage and thinks for a moment.

A sudden thought brings him to attention. He dashes to the visicast receiver and closes a switch. From the corner of the screen, a voice is heard.

"13.59 o'clock, Fifth Zone Time."

Edward looks up and asks. "Why all the excitement?"

"At 14.00 o'clock, I will hear from her. Please assume your weather-hood. I dare not risk being identified as a male."

Both men adjust their weather-hoods. To all appearances, one might have been the reflection of the other.

Robert adjusts the dial near the screen and its surface takes on a clouded semblance. Slowly it clears. A delicately modeled face appears.

Edward is impressed by its vivacity and intelligence. He reflects that she is indeed different from the married female scientists of his acquaintance. Here are brains with something in addition.

The word beauty is not in his vocabulary. In his world, all things are too much alike. Instinct more than appearance is used to distinguish personalities.

A low, clear-cultured voice is heard. "My friend, is all well with you?"

Robert grasps a protruding handle near the screen. This causes his face to become visible to his beloved. He fixes his eyes on hers and for fully half an hour, sits motionless.

Edward watches this scene and muses. "I wonder how many centuries have passed since these affairs were common occurrences? This stolid scientist certainly is changed. Both he and Brown-Joan have been born twenty-five centuries too late!"

The sound of the annunciator awakens both men to action.

Robert quickly disconnects the televisor and removes his hood.

His guest follows his example.

The visitor's screen shows the usual high, bulging, bald-headed figure, but with this difference. One hand holds an ornate scepter.

Edward gasps. "A messenger from the Supreme Council! Admit him quickly."

Robert signals permission to ascend. He knows that it must be important, as even the Supreme Council did not intrude upon an eminent scientist on his rest day without good reason.

The elevator panel slides open to discharge another similar figure. Save for his badge of office, the messenger might easily be taken for either of the other occupants of the room, especially if all had been wearing their weather hoods. The visitor slips out of his hood and addresses his host.

"Greetings, Smith-Robert. Only a matter of importance brings me here today. Please pardon the intrusion."

Robert bows stiffly. "A messenger of the Reverent Council is always welcome, White-Joseph," he replies.

Edward offers to retire, but Robert stays him.

The herald bobs his shiny pate and in a monotone recites. "To Smith-Robert, greetings. The Supreme Council hereby refuses your request to assume responsibility for your own marriage. Our decision is endorsed by leaders of the respected Smith family, who fear that inexpert choice of a mate might dim and perhaps forever destroy the brilliancy of your descendants. Compliments of Jones-Ronald, Governor."

With these words, the messenger dons his hood and retires.

Edward expresses his regret at his friend's disappointment and again offers his services.

Robert is greatly downcast, and wordlessly nods farewell to his friend.

For an hour Robert meditates near the window of his study.

Finally, he clenches his fists and mutters to himself.

"A strange malady indeed. In spite of years of submissive training, I find myself contemplating desperate means to affect my cure!"

CHAPTER III

A National Catastrophe

● After a strenuous week in his laboratory, Smith-Robert is again enjoying a rest day at his apartment. His associates have remarked at his unusual energy. Never has his mind been more active.

Jones-Edward is seated by Robert's side. He has made several attempts to divert the conversations to the discussion of Brown-Joan, but in vain. The only mention Robert makes of his affliction consists of a question as to why he felt so energetic.

Edward explains that the sufferer was often subjected to quick changes of temperament. From an attack of dullness, the patient would swing to the other extreme without warning.

Robert evades all attempts to discuss his affair.

Noticing his friend's reluctance, Edward relates some of the current gossip.

"I had an amusing experience today," he begins. "You recall that White-Francis, director of Communications Council S-12, recently met with an accident. While adjusting a new televisor, a heavy piece of mechanism fell and crushed his legs so badly that amputation was necessary. Since his recovery, he has been addressing audiences on the wisdom of universally removing all lower extremities. He mentions what an inconvenience they are, how they get in the way of every movement we make, their great delicacy and sensitivity to bruises. Accentuating their uselessness, he advocates amputation on the additional grounds that they absorb too much precious energy. While he was making these statements, I had an assistant procure for me a volume of twelth century legends. When he had concluded his harangue, I arose and, with permission, read the ancient story of the fox who had lost his tail. I'll wager there hasn't been as much laughter in Neonia for five hundred years."

Instead of being amused by this anecdote, Smith-Robert becomes more irritable. His carriage glides up and down the chamber and a deep frown crosses his usually expressionless face.

The hum of a general visicastor alarm shatters the peaceful quiet of the room.

Robert connects his receiver and the televisor's surface shows the stern and anxious countenance of White-Thomas of the Communications Council. His metallic voice snaps.

"To the governors and directors of all Research-Councils, greetings! You are summoned to attend an emergent communication of the Energy Advisory Board, to be held at the Executive Chamber, City of Xenonia, promptly at the 20th hour, Fifth Zone Time, today. No excuse for absence will be permitted. Smith-Ivan, Governor." The image fades.

Jones-Edward is noticeably affected. "There hasn't been an emergent communication of the Energy Board in a thousand years," he gasps. "I wonder what danger threatens?"

"We'll find out immediately," replies Robert. "I'll ask the local Communications Council for an explanation."

He goes to the televisor dial and the drone of White-Allan's nasal voice is heard.

"Communications Council, City of Neonia."

Robert speaks into a small microphone. "Smith-Robert, director of Science Research Council G-42, requests reason for general emergent alarm."

The nasal voice replies. "An accident has occurred at your own laboratory. At 9:37 this morning, one of your assistants, Smith-Arthur, while making his rounds, entered Storehouse L-17, where all our reserve Zylleon Gas is kept. He was astounded to find that the gauges on the tanks read zero. Investigation disclosed a large leak in one of the valves, caused by the crystallization of the metal casting."

Robert disconnects the instrument.

"But what does this mean?" asks Edward.

"This is really serious news. Zylleon gas is the substance used to absorb the rays of the sun. Its capacity for storing

these solar rays is remarkable. It not only preserves them, but converts them into a gas which we use as a fuel for all our dynamos. It was developed in the thirty-third century by one of my ancestors, a Smith-John. This discovery solved all our problems of energy sources.

"Since zylleon only acts as a catalyst, and does not of itself enter into any chemical combination, it may be recovered and used repeatedly. However, the earth's supply is distinctly limited and I know of only a small quantity still remaining in our possession."

"With that knowledge," exclaimed Edward; "I am surprised that your experts haven't endeavored to evolve a substitute."

"We have been busily engaged in experimenting for years. All the Research Councils from G-35 to G-45 were assigned to this problem in 4302," replies Robert.

"Well, the Supreme Council now has something vital to worry about. I shall request permission to attend the conference with you tonight," Edward declares.

As he speaks these words, the time signal is heard.

"13.59 o'clock, Fifth Zone Time."

The men adjust their weather-hoods.

Robert tunes in General Communications Wave X-253. After a few seconds, Brown-Joan's features are discerned. Robert makes himself visible and they spend almost an hour in thought transference.

At the end of their session, Edward notices a triumphant smile on Joan's face. Even Robert's eyes hold a joyous look.

Robert grasps Edward's thin shoulder.

"Old friend," he says, "I have the greatest news. Joan has developed a substitute for zylleon! While searching for a substance to satisfactorily insulate large telescopes from the suns' rays, she accidentally fell upon a new element with the same powers as the lost gas. Until she had perfected her discovery, she hadn't dared tell even me."

Edward almost falls from his seat in his glee. "Think of the honors she will obtain," he cries. "I'll wager this will earn her a council governorship after she is married."

Noticing Robert flinch, Edward quickly catches himself and continues. "I'm sorry, Robert; I didn't mean to hurt you."

Robert assures him he is forgiven, and remarks:

"We have decided upon certain plans regarding this substitute. I'll need your help, and will explain them to you as we fly to Xenonia. Come, let us start."

"Excellent," declares Edward. "I have a duatrol car on your landing platform; it will be more comfortable and private than the general conveyance."

Trembling with anticipation, Robert takes the operator's seat in the duatrol. He begins to outline Brown-Joan's plan of action.

Edward listens carefully. He realizes that he will need his keenest wits in the coming mental battle with the Supreme Council!

CHAPTER IV

Coercion Versus Habit

● The duatrol's stream-lined nose leaves the landing platform at an angle of forty-five degrees.

With one eye on the telekinetometer, Robert slowly increases the speed of his craft. He quickly passes up through the local travel channels. As the earth's atmospheric girdle is left behind, the car's speed becomes terrific. Here, in the thin air, distance melts like snow in an electric furnace.

A green light on his trajectoscope informs Robert that he has reached the highest point in the arc of his flight. The duatrol slowly drops. The geodetron, or automatic object-finder, will set them down right at their destination.

Scarcely watching their flight, both friends are deep in conversation. One plan is discarded after another.

Once more in the earth's atmosphere, the aerial barometer resumes its labors. The clicking of altitude signals fills the car.

Edward finally decides upon a course

of action. He televises for permission to attend the Energy conference. This is readily granted.

Their craft rapidly nears the polar city of Xenonia. The site of the capitol city is squarely at the North Pole. This was found convenient for several reasons; it enabled a standard geodetric guide and all automatic object-finders were set by the Xenonian readings. Also, the North Pole was the center of the modern civilized world. It was nearest to most of the important metropolises.

Being thus centrally located, it was ideal for government. Here amidst the eternal ice, it was easily defended against any enemy.

In the distance, surrounded by bleak ice fields, the golden towers of the capitol grow larger and larger.

Robert glances at the external thermometer. Edward jokingly remarks that he would like to place runners on his carriage and ski from glacier to glacier.

Xenonia was the only city on the globe where arriving cars did not alight on exposed flying platforms.

Robert signals and an opening is seen in the side of a high metal structure. He carefully guides his craft into this aperture and the door closes behind them. Attendants help them alight and remove their weather hoods. They are rushed to elevators.

Without delay, they assume prominent positions in the Executive Chamber. It is quite early and the immense hall is still half empty. Slowly every seat is taken. A bird's-eye view of the assemblage, at first glance, resembles a cross-section of an incubator. Hundreds of tiers of shiny egg-like heads meet the eye.

A gong is sounded. Edward nudges Robert as the venerable Jones-Ronald waves for silence. He is very proud of his grandfather. The conference is formally called to order and a prayer is offered to the Omnipotent One for the success of the meeting.

The details of the accident are reviewed. Young Smith-Arthur tells his story and is closely questioned. A theory of vandalism is mentioned and quickly discarded. No sane person would thus risk the safety of the world.

All eleven governors of the Energy Research Councils are questioned. All promise success in the near future, but none have obtained any encouraging results. Suggestions are requested, but few are offered.

When a deadly quiet falls over the assemblage, Jones-Edward raises his hand and asks for permission to speak. The presiding officer nods.

"Venerable Jones-Ronald and worthy Governors and Directors," he begins. "We are in the midst of a great emergency. I have valuable news which may be a solution to our problems. However, the information is of such importance that I must request a private session of the Supreme Council in order to properly submit my suggestions."

A deep murmur of whispered voices rumbles across the hall. Carriages are turned so that all eyes may regard the speaker.

Jones-Ronald impatiently motions for silence and is instantly obeyed.

"My son," he replies, "your request is granted; I shall call this meeting immediately. This conference is adjourned for two hours."

The twelve members of the Supreme Council leave the auditorium and repair to a smaller chamber.

All eyes follow Robert and Edward as they fall in after the Council.

Upon arriving at their destination, both friends wheel themselves into a position in the center of the room. Robert is greatly abashed at such close contact with the All-Powerful Supreme Council. Edward is quite at ease. He bobs his shining pate and is answered by slight nods from his audience.

"Jones-Edward," growls the Governor, "why have you brought Smith-Robert to this council? He is in distinct disfavor with his respected family. What relation has he with our problem?"

Robert anxiously looks at his friend.

He has the greatest confidence in his ability.

A wrinkled councilman interrupts to inform the Governor that the accident to the zylleon had occurred at Robert's post.

"We are aware of that," replies his leader. "Smith-Robert was enjoying his rest-day. He could not have been responsible for this calamity. But come, my son, time passes quickly. What have you to say?"

"Respected leaders," Edward begins, "in order to correctly present my plea, I must review our present circumstances. For more than a thousand years, we have been enjoying the blessing of solar energy, all due to the aid of zylleon. We have perfected the science of mechanization so completely that scarcely the movement of a muscle is necessary to carry on our daily vocations.

"In order to clothe, feed, or warm ourselves, a succession of light taps on buttons or levers is all that is necessary. Through the ages, the disuse of certain tendons has resulted in the shriveling and shrinking of our legs. The once famously powerful human physique has vanished. We no longer are called upon to perform feats of great strength. True, our brains have developed to enormous capacities. But unless we quickly discover some substitute for zylleon, we shall die.

"I cannot hope that nature will again come to our aid and, by evolution, return to us our bulging muscles and our large and sinewy frames. It is possible that a few will survive this catastrophe and begin the development of a new race, but I shudder to think how few. None of you can name a score of individuals whose training qualifies them to meet many physical trials. I challenge you to mention two of our comrades who can even crawl on their legs! But all this dark foreboding is unnecessary. There is a solution!"

● The council stiffens to attention.

Edward is enjoying their astonishment. He is greatly encouraged by the effect of his words and boldly continues.

"A member of the eminent Smith family, born to a distinguished position in scientific research, is here with us, no one less than my good friend Smith-Robert. He has discovered the substitute we seek, but realizing the value of his invention, he wishes an honor commensurate with his discovery."

Jones-Ronald impatiently interrupts: "There is no honor greater than membership in the Supreme Council. There can be no vacancy until a present member dies. All know this. What then, does Smith-Robert desire?"

Green-Gilbert, Governor of the Eugenics Council, angered at Edward's audacity, rumbles. "How dare he bargain with the Supreme Council? Anything of value he may have rightfully is ours, without payment."

Jones-Ronald quiets him with a quick look. "Pray continue, Edward."

"My friend, Smith-Robert, well knows that the Eugenics Council, as well as his respected family, would never permit his marriage to any but one of an eligible scientific lineage. He has asked me to request his marriage to the most intelligent, most capable daughter of a recognized family—a female of the highest scientific repute. Surely, this is not unreasonable."

Jones-Ronald slyly asks, "And does our good Robert know the person whose accomplishments you name?"

"How could he even imagine any such individual, Great Leader?" Edward replies.

"True enough," remarks Green-Gilbert, "My bureau would never permit such information to become common knowledge."

"Governor Green-Gilbert," asks Ronald, "how many females do you know who would meet these requirements?"

"No more than three," replies Gilbert: "Green-Anne, my own grand-daughter, who is a director of the Nutrition Council; White-Paula who has distinguished herself in the development of New Communications devices; and Brown-Joan

whose work in the fields of Astrophysics has been unequalled."

Hearing these additional names, Robert suppresses a shudder. What if the Eugenics Council assigns one of the other two?

Edward is equal to the situation. "If the Governor pleases, what are their ages?" he asks.

"I have named them in the order of their years."

"Would all be suitable for Smith-Robert?" presses Edward.

Gilbert thinks for a moment and then replies. "The record of Smith-Robert is still fresh in my mind. Eugenically, White-Paula would not be his type. Either of the others are suitable."

Edward casually drawls. "I am sure either female would suit Smith-Robert, but I suggest the younger. Her profession is more like his own. Has the Council any objections to this arrangement?"

Jones-Ronald consults his associates. They mutter and grumble. Finally they face their supplicants.

The Governor of the Council solemnly addresses the friends. "My sons, your plea has been granted. It will be formally announced that the Eugenics Council has chosen Brown-Joan as your mate. After due consideration, we forgive your insubordination and overlook your lack of faith. We were guided in our decision by the fact that you have discovered a great boon to humanity and that your desire to choose your own mate must have been undoubtedly due to a commendable hope to continue the brilliant descendants such as the Smith family now boasts."

● Another rest-day. Again Robert and Edward are together at the apartment. Much has been accomplished since the voyage to Xenonia. Great quantities of the new gas have been distributed to all power plants. For a reason unknown to his associates, Robert has named it "Rojoanal." It has even greater possibilities than zylleon. The entire populace has applauded his efforts. He has been appointed vice-governor of the Scientific Research Council.

Both friends await the fourteenth hour. Time drags on. Minutes seem like hours, but at last the signal comes.

"13.59 o'clock, Fifth Zone Time."

Robert selects the required wave and soon his dear one appears. Joy and relief are inscribed on their faces.

Edward sits back and gleefully witnesses the happiness of his friend. The silent conversation quickly ends.

Robert, with a strange choked feeling, addresses Edward.

"My friend," he begins, "how will we ever be able to thank you for the service you have rendered us? Without your assistance, we could not have succeeded. Your address to the Supreme Council was marvelous. I never could have convinced them that my choice was purely impersonal. I fear we shall be in your debt forever."

"Be at ease," Edward remonstrates. "I enjoyed every moment of our visit with the Council. I seldom experience any change from my usual quiet existence. It was delightful. But you can do one thing for me, Robert.

"I am sure that you had something to do with the loss of the zylleon gas, but never mind that. What led you to attempt so daring an act? Burglary and robbery haven't been committed for centuries. I hope that you have no more anachronistic ideas."

"It was quite a problem, Edward. I never would have thought of forcing our elaborate system of locks, but again, I have you to thank," replies Robert.

"I? How?"

"While searching among your ancient volumes for information about my illness, I found a passage which you had underlined. It started a new train of thought."

"What was this passage, Robert?"

"*Love Laughs at Locksmiths,*" replies Robert.

Both men grasp each other's hands and silently grin.

THE END

(Illustration by Paul)

Louis Berson took the great chance, and throwing up his revolver, fired.

THE FALL OF THE EIFFEL TOWER

By

CHARLES de RICHTER

(Translated from the French by Fletcher Pratt)

● The entire civilization of Europe is threatened to extinction by the Menace, the rest of the world to follow. Paris has been completely destroyed and the very existence of humanity is at stake.

This, the greatest French science-fiction story since Jules Verne, carries on to a thrilling conclusion packed with masterfully handled action and incidents that rarely appear in science-fiction with such vivid reality and conviction.

Charles de Richter, as proven by this classic masterpiece, is truly a great writer, and we intend to import and translate more of his work, due to the high praise that this novel is receiving.

PART THREE

Conclusion

WHAT HAS GONE BEFORE:

● Beginning on the 22nd of April, 1987, a series of events begin in Europe that are destined to startle the entire world. Ships fall to pieces and sink in the harbors. Buildings fall into the earth. General destruction takes place, particularly in Paris. The members of the French cabinet receive handwritten warnings from "the weakness that is strength" telling them that unless every nation disarms immediately, human civilization will perish from the earth. At first these warnings are not heeded, but when the prophesies of the notes come true, their power cannot be denied. An investigating reporter, Louis Berson, who was getting too hot on the trail, disappears and is found eight days later, alive but with his mind a complete blank concerning those eight days. Scientists declare that termites under the earth have undermined the city of Paris so that great cavities form into which the buildings are sinking. But, if this is the case, someone must be directing the actions of the termites, for they work systematically and destroy those things that the Invisible Menace directs to be destroyed. A hypnotist causes Berson to remember what had happened to him during the eight days he had been captured, and he learns that he had been in the headquarters of the enemy. With this information to start with, he finds his way to the great termitaries, where the insects thrived and were directed by the Invisible Menace. He is led here by "the girl with the mutilated finger," who had attended him during the eight days, and who he located again in a lecture room and kept on her trail. Upon the fall of the Eiffel Tower, the people flee Paris and the government is moved to Algiers. Paris is now practically non-existent. The Premier invites delegates from England, Germany, and Italy to a conference for combatting the Menace, for it had now started to attack all of these countries. The outlook is discouraging, for no means to combat the Menace has been devised. The inter-governmental conference is about to take place upon the conclusion of Part Two, and Etienne Gromier, the former Premier who had been discharged because of his inability to combat the Menace, and Louis Berson, the reporter, are invited to make known their latest findings. *Now go on with the story.*

CHAPTER XVI

The Master of the Menace

● M. Rouleau-Dugage, whose pallor had drawn the attention of the other delegates from the moment of their arrival, looked for the fifth time at the horrible clock which faced him from the mantelpiece of the conference room. Upright, and standing at a window, the President was discussing something with Etienne Gromier in a low tone of voice, while a little apart, the German and Italian delegates were comparing notes handed to them by their secretaries at small tables at one side of the room.

It was a quarter after two, and the conference destined to save civilization should have begun fifteen minutes before.

"It's incredible," remarked M. Rouleau-Dugage, aloud. "The British delegates have always considered promptness as the first of the virtues. I don't understand how this one comes to be lacking in that respect."

The President offered an explanation.

"Perhaps the English delegate has received a last-minute message from his home government. That would explain his lateness. Unfortunately, events are moving only too rapidly these days."

The Italian delegate, who was caressing a little blonde beard, cut to a point and perfumed, emitted an ironic smile.

"Perhaps our English colleague, alone among all of us, has received a reply from the master of the Menace. Perhaps, even, for it would not be the first time, he is busy making a separate peace for his country."

"*Ach!* No, it would not be the first time," repeated the delegate from Berlin, a chocolate-colored Nordic from the Cameroons, that nursery of German statesmen.

The President, who had exchanged a rapid glance with M. Rouleau-Dugage, raised his hand.

"Come, gentlemen. There is nothing to cause us to make such a supposition, nor to doubt the sincerity of a friendly nation which has had as many trials as any of us. And for my part, I admit that I would be extremely glad to hear that the British delegate had entered into relations with the gentlemen to whom we owe this plague. He could perhaps give us some solid basis for our discussions."

"The radio appeals have brought no answer?" asked the Italian delegate.

The President turned toward the Premier as though to ask him to answer. The latter hesitated, and then seemed to decide.

"Yes. But not exactly the response we had hoped for. This morning on my desk I found the usual yellow envelope, containing the sheet of school-paper with its message in blue ink."

"On your desk?" inquired one of the delegates.

"Nothing unusual about that," explained the Premier. "We have no police on guard now, you know. Almost anyone could have gotten in during the night."

"And what did your note from the master of the Menace have to say?" cut in the German delegate, anxious to arrive at the crucial point.

M. Rouleau-Dugage opened a drawer, and bringing to light the paper, passed it around silently. The message read:

I SAID IT WAS TOO LATE. THE EVIL FORCES ARE NOW LET LOOSE. LET THEM FINISH THEIR TASK. MAN MUST DISAPPEAR FROM THE EARTH. THE MENACE

There was a heavy silence in the conference room. Everyone understood only too well the meaning of the words, and according to his temperament, was thinking of the consequences. It was the destruction of all the hopes born of the decision to discuss and come to terms with the enemy.

The Premier spoke first.

"It is now half-past two," he declared "and the absence of the English delegate is, I repeat, inconceivable. I propose that we send to the embassy and ask the reason at once. As the President has just said, some event must have happened in England."

Without waiting for a reply, he took up the private radiophone on his desk, and sought communication with the English embassy.

The conversation died down and the others watched the face of the Premier, anxious to observe his reactions.

"What's that?" he asked, after having explained the reason for his call. "At twenty-five minutes to two? Thank you."

He replaced the instrument and turned toward the other conferees.

"Gentlemen," he announced, "I was right in thinking the absence of our English colleague abnormal. They have just informed me that Sir Horace Mersey, the delegate to our conference, left his embassy at twenty-five minutes to two. Ten minutes would have been more than enough, especially under the present conditions, for him to have covered the distance. It is beyond question that he must have suffered some accident."

He had turned toward another instrument, to call the police office, when he sud-

denly paused with a shrug of his shoulders. Although he had there in the room the means of communicating with the entire world, it was vain for him to expect the least help from the force to which every Frenchman can turn in normal times. Neither the police nor the detective bureau would have answered. Their offices were empty, denuded of their inhabitants by order of the government, which had carried them all off to Algiers with the moving of the capital.

"Impossible to do anything," he remarked nervously. "We are at the same point as our ancestors before the invention of the telegraph."

"Even worse," declared the Italian delegate. "At least they had messengers around, which we altogether lack at the present moment. Say rather that we are at the same state as our ultimate ancestors at the dawn of humanity. And even then, they had something we altogether lack—the sense of smell."

"Was he alone?" asked the German delegate, practically.

M. Rouleau-Dugage ceased his nervous pacing of the floor.

"Sir Horace Mersey took one of the embassy's cars. He was accompanied by his secretary, a blonde girl of about twenty years, and according to what they told me over the phone, the pilot of the airplane that brought him to France wished to act as his chauffeur, but Sir Horace drove himself."

"We might ask for more information," suggested the Italian delegate, already seeing sinister connections in the affair. "It seems to me that it would be useful to know more."

Picking up the instrument again, the Premier once more was connected with the embassy.

"Did Sir Horace Mersey by any chance receive a message just before leaving?" he inquired. "His delay in arriving disturbs us here, and we would like to have more precise information."

He stopped, listening. Everyone in the room had the impression that he had grown paler.

"Ah!" he said simply. "You are certain? Thank you."

● He replaced the instrument on the table, and for an instant stood motionless. Finally, passing his hand across his face, he seemed to recover his self-control.

"The pilot of Sir Horace's airplane," he declared, "has just informed me that a quarter of an hour before he left, Sir Horace Mersey received a letter, which was brought by hand and was enclosed in a yellow envelope. He took it himself. But he is unable to tell me anything about its contents."

The words "a yellow envelope" caused a general start. Everyone present knew what kind of missives came that way.

There was a series of glances exchanged around the table, but it was the Italian delegate who, with a sigh, expressed the general opinion.

"Ah, then English is leaving us after all. Simply just what I told you in the beginning. You will hear soon that his auto was seen approaching the airplane landing stage and that his airplane has already gone."

"Gentlemen, gentlemen," cried the President, "I beg you. There is nothing to show that such a supposition is justified. For my own part, I am sure that we will soon have a reasonable explanation. Sir Horace Mersey is not the kind of man who would betray his colleagues in this fashion. He knows very well that his place at the moment is here, and I am certain that he will arrive within a few minutes."

"Besides," cut in the German delegate, who had been whispering something to the Italian behind his hand, "I believe that it was not the intention of the honorable representative of Italy to throw doubt on Sir Horace's good faith. What he wished to imply was that since you have been sending out radio appeals to the master of the Menace, this sudden departure may have been to place himself in communication with that gentleman."

"It seems possible," acquiesced the President, "and all our hopes point in the

same direction. If Sir Horace has really received a communication from the master of the Menace, there is some hope for us yet. But alas, that is only a hypothesis."

A voice from the door caused everyone to start.

"Perhaps, Monsieur the President, I can offer an explanation, if you will permit."

Everyone turned and all eyes were drawn to the new arrival, a young man of athletic appearance. He stood there calmly, seeming not at all disturbed by the curiosity of which he had become the object.

The President consulted the Premier with a glance, but the latter could only express his ignorance by a shake of the head.

He was about to tap the bell to call the messenger when Etienne Gromier, who had left the room a minute before without anyone noticing it, stepped from behind the unknown and bowed in the direction of the group.

"Monsieur the President," he declared, "permit me to present to you one of my friends, a young journalist whose name is already known to you, I hope—Louis Berson of *Nouvelles du Monde*."

Although none of them as yet knew the entire truth with regard to Louis Berson's expedition to the country of the termites, no one, since the famous session of the Chamber when Etienne Gromier had proclaimed his name to the world, but was familiar with the name of the audacious reporter who had followed the trail of the master of the Menace. No one but M. Rouleau-Dugage failed to partake of the general joy at seeing him there. That politician was displeased; for with Berson's arrival, Gromier became an important personage again and Rouleau-Dugage a minor one.

But Etienne Gromier was giving the delegates small time for reflection.

"My friend, Louis Berson," he said, "is a trifle late, but it is because he tried, before coming to this meeting, to get in touch with the master of the Menace once more. Thanks to his efforts, we are able to give you some information about the disappearance of Sir Horace Mersey. He personally saw the British delegate's car, standing on a street corner in the Sante section. To be precise, it was the corner of the Rue Saint Jacques and the Rue Jean Dolent. Our Italian friend's hypothesis is thus confirmed on one point."

"Which one?" inquired M. Rouleau-Dugage.

Etienne Gromier paid no attention to the irony.

"In this point—that he has been in communication with the Menace. For it is at 25, Rue Jean Dolent that one of the principle centers of the Menace is established."

If lightning had struck the room, the effect could not have been greater. Every eye was turned toward Louis Berson who stood waiting in the doorway. He had hesitated for some time before revealing even to the former Minister of the Interior all that he knew about the studio at 25, Rue Jean Dolent and its strange occupant, but he had finally reached the conclusion that he had not the right to guard its secret any longer. And now, he was almost afraid of the results of having spoken. He thought of "her" and from the bottom of his heart hoped that she had left the city in the general evacuation. Everything pointed in this direction; the studio seemed quite deserted and the door always closed. But he would have been glad to know that she was far away from all that.

He was recalled to his senses by a handshake from the President.

"Monsieur Berson," the head of the federated republics said to him, "you are welcome to this conference, and we thank you for your efforts up to this point. If there is anything that seems to indicate the success of this meeting, it is the fact that you have come."

He turned toward the foreign delegates and continued.

"In the inexplicable absence of the English delegate, which this gentleman's statement only partly explains, I propose

that we open the session without losing any further time. Gentlemen, will you be good enough to take your places?"

● Seeing himself become less and less important, M. Rouleau-Dugage was on the point of uttering a protest, but unfortunately for himself he could think of no reason for offering one, and followed the rest to the table with an expression of contrariety. Only Louis Berson remained on his feet. The President pointed him to the vacant chair.

"I think," he remarked, "that no one here will find it out of place if M. Berson occupies that place?"

All the heads bent in mute sign of agreement except that of M. Rouleau-Dugage, and Louis Berson, at a new gesture from the President, went to the indicated place.

He was seated between the German and Italian delegates and directly across the table from the President.

The latter opened the conference with a brief speech.

"Gentlemen, you know the reason for this meeting. Monsieur the Premier, who is at my right, has prepared a statement of the events which, during the last two months, have menaced the public peace and the future of civilization. But since M. Louis Berson, who has seen more of the Menace than any living man, is among us, I think that it would perhaps be better if he were to begin by telling us the story of what he knows."

Louis Berson bowed.

"I am at your disposition."

"Monsieur Berson, I beg you to speak."

For a moment the young reporter was a trifle overwhelmed by the company in which he found himself. Then, looking directly at the President, and speaking as though he were addressing him alone, he began his story.

We know the story already; it was the relation of the extraordinary adventures, which, beginning with his investigation into the disappearance of Melpomes, had carried him through the pursuit of the girl with the mutilated finger, his own capture and imprisonment, the subsequent release, and his night in the room with the skeleton, up to his visit to the catacombs and his interview with the person who seemed to be one of the masters of the Menace.

No one interrupted him. Around him were only men who hung on his every word, almost restraining their own breath, wondering whether they were really awake. And his story slew the last possible illusion; when he had finished, everyone was convinced that both the Menace and its master were a reality.

"I may add," remarked Etienne Gromier, when he had finished, "that the disc, on which the relation this gentleman made under the influence of Sankar, is in my possession, and I will hold it at the disposition of the members of this conference. It will corroborate this story in every detail."

The words seemed to release a spell; everyone burst out at once. The President rapped on the table with his paper-knife.

"Gentlemen," he said, "you have heard what M. Berson had to say. I imagine that after this story, the hesitation which some among us have felt—you among others, my dear Premier—no longer exists. We are not facing a merely animal peril, but the work of a human brain, and with that certainty, our discussion will be considerably aided."

"Just the same," remarked the German delegate, "the letter received by your Premier this morning holds out very little hope."

"If we are persuaded of the uselessness of our work from the beginning," replied the President, "it would be better to break up this conference before it goes any further."

There was a murmur of agreement.

"I believe," continued the president, "that M. Berson's story, taken in connection with the absence of the British delegate from our board, is sufficient to allow us considerable hope. In spite of what was said a few moments ago, it is clear that Sir Horace Mersey has gone to the Rue Jean Dolent in answer to some mes-

sage from the master of the Menace. This unknown is urged on to his task, and we must not forget it, by a splendid ideal, an ideal which all of us agree to be noble. Perhaps he has not answered our broadcasts for fear of some trap. It would not be at all the same thing if we were in a position to say to him 'Here is what the four greatest powers of Europe have decided to do' as a proof of our sincerity. May I ask what the thoughts of the gentlemen from Germany and Italy are in the matter?"

"I think you are perfectly right," replied the German, speaking both for his colleague and himself.

"Very well, gentlemen, then I will ask you to place your cards on the table and say frankly what your governments are prepared to do to end the attacks of the menace."

"In other words," M. Rouleau-Dugage tossed in, angrily, "you, Monsieur the President, are deciding to capitulate before the enemy in the name of France without consulting the cabinet. I warn you that it is unconstitutional."

The President turned clear eyes toward him.

"Have you any other proposal to make?"

He did not wait for the reply which, for that matter, was not forthcoming, but went on with what he was saying.

"If we examine the notes that all the governments have received, as well as the whole background of this affair, it is clear that the director of the Menace has one single idea—universal peace.

"I daresay that everyone here has dreamed of attaining that same end. The man behind the Menace goes further than this; he wishes to bring about the dream by violent methods, and it seems, will not hesitate to sacrifice the whole of humanity if it will not agree."

"Pardon," cut in M. Rouleau-Dugage again, "he is trying it. Whether he will succeed is something else again."

"I had foreseen this objection, sir," replied the President, "and it is for this reason that I invited the Minister of War as well as the Minister of the Navy to take part in this conference."

He turned toward the end of the table, where the two persons mentioned were sitting.

"Monsieur the Minister of War, will you be good enough to give us your opinion?"

The Minister of War was a man of few words and practical temperament. He replied without hesitation.

"It is impossible to carry on the struggle. Perhaps, if we were to destroy the whole of Paris, not leaving one stone on another, we would succeed in arresting the progress of the plague. But I believe that this would only cause it to break out at some other place. Wherever the termites have established their colonies, we have ultimately been forced to give up the struggle."

"Under these conditions," the President went on, "I think that only one solution is possible. In the name of the French government, then, I propose the following: to capitulate and agree to the conditions of our enemy."

● The Italian delegate had risen in his place. He seemed overwhelmed by emotion.

"May I interpret these words as an offer on the part of France to disarm unconditionally?"

The President bowed.

"You may."

There was a moment of intensely charged silence in the conference room. At last, faced by the common danger, one of the nations of the world had agreed to throw away its armaments. To quote the words of a later historian, "France declared peace on the world."

The German delegate in his turn rose. He swallowed hard, and his eyes seemed moist behind his spectacles.

"In the name of my government, I wish to associate in the generous decision of the French government, and I declare that, beginning from this day, the disarmament of Germany will take place."

"And that of Italy also!" cried the

Italian delegate, bounding from his chair. "We have delayed only too long. Beginning this evening, Italy will dismiss her army and sink her fleet. Long live peace!"

"Long live world peace!" cried the others at the table, all yielding to the emotion of the moment

"Gentlemen," announced the President, "if you will permit, we will transmit the news of the agreement we have just reached to all the governments of the world. We must make the movement complete so that we will be able to say to our adversary, 'All that you wished has been done. The armaments of the world are destroyed.' "

Pulling towards him a dial which was connected with the broadcasting services of the world news agencies, he swung a couple of numbers, and then holding up his hand for silence, said:

"The world is listening." And picking up the microphone, he announced clearly.

"Aware of the folly of war, the governments of France, Italy, and Germany, in the absence of the English delegate, have decided to renounce war forever, and to abandon all armaments. The three governments appeal to the other nations of the world to follow their example."

Out in the world, at London, New York, Madrid, Stockholm, Rio de Janeiro, Peking, Yokohama, and a hundred other capitals, the news reached those for whom it was intended. Within twenty minutes, the loud-speakers of the world were announcing it to eagerly awaiting crowds. And no government, no parliament, wished to discuss the project in the view of what had happened already. The decision was reached by something more irresistible than any government; the will, not of one nation, but of the entire world.

Half an hour later, the replies of other nations were already arriving over the radiophone, and there was not one of those replies that did not agree to follow unconditionally the example set by the French, German, and Italian governments.

One of the first acceptances was that which arrived from the English government, which at the same time expressed its astonishment that their delegate should have been absent from the conference, and announced that he had not reported to them.

In the office of the Ministry of the Interior, the emotion of the first moments had given place to a consciousness of the solemnity of the occasion. Following the radio announcement, a form of a treaty had been drawn up, and now, as the radiophones spoke, the secretaries were busy noting down the acceptances of the different kingdoms and republics of the world as fast as they came over the air. The voice of the radio was the only one in the room.

With his chin on his hand, Louis Berson sat, listening to the proceedings.

"I am lucky enough to be present at one of the most historic occasions of the world," he remarked to himself. "The earth has never seen such a meeting, nor is it likely ever to see another one. What a scoop this will be for my paper!" And in spite of himself, he began to think of the title of the book he could write about it, but found none that quite pleased him. Suddenly he started and lifted his head; he remembered a phrase, the one the little old man in the catacombs had repeated when Berson had mentioned just such an eventuality as had arrived this afternoon.

"Too late! Humanity has let its chance go by. It is condemned to destruction."

What if he had been right? What if all this joy over the end of the world's wars were only to change into despair at the end?

He refused to accept such a conclusion. No, it was impossible that civilization was at the edge of a precipice; something would happen to turn aside the Menace. But what?

The voice of the President drew him out of his meditations. The treaty had been finished and the delegates were being asked to affix their signatures.

M. Rouleau-Dugage, who had preserved the sourness of his visage, threw the first shadow of doubt into the conference.

"May I inquire," he asked in a low voice, "what means you intend to employ to communicate to our adversary the—the—" he hesitated for a moment—"the surrender you have just consented to?"

"My dear Premier," replied the President with a smile. "At the present moment, I doubt whether there is a single radio station in the world that is not broadcasting the historic news of this conference. And the French posts, at least, will be going half the night with it."

"And if, all the same, the master of the Menace doesn't get any of all these broadcasts, is there someone who can go see him and tell him about it?"

The President was silent, unable to find a reply in spite of his optimism, when a voice cut in.

"Yes, sir, I'll do it."

Rouleau-Dugage looked over his glasses and saw the reporter. The latter had spoken almost without thinking, but now that he had said it, he felt a certain pleasure in facing the Premier.

"Am I to understand, sir," asked Rouleau-Dugage, emphasizing every word to make the effect more severe, "that you are offering to seek out the man you imagine —I say, you imagine, because there is no proof of it—to be the master of the Menace?"

"It seems to me that my words could hardly have any other meaning," replied Louis Berson, frowning slightly. "I repeat, so that even you will be convinced, that no matter what the dangers are in the matter, I will attempt to carry the message of the peace treaty to the only man who can halt the plague."

"In that case, I have nothing more to say."

Across the table, the President extended his hand toward the reporter.

"We would have expected nothing less of you. But permit me to thank you in the name of all of us."

Louis Berson rose.

"Monsieur the President, I cannot promise you that my effort will be successful, but I can assure you of one thing; everything humanly possible will be done. But may I ask whether you do not think that to make certain I should be provided with some official credentials?"

"True," remarked Etienne Gromier, "it seems to me that a copy of the treaty would have more weight than anything anyone could say."

The idea met with general approval, and a second copy was prepared and signed forthwith.

"The only thing lacking," declared the President, "is the seal of state. M. Rouleau-Dugage, will you be good enough to ask your messenger to get it?"

Rouleau-Dugage gave the order and, as the two texts were being compared, the door opened to admit the little messenger. Foreseeing the surprise of the delegates at the curious spectacle he made, Rouleau-Dugage stopped to explain.

"Permit me to introduce you to Papa Felicien," he remarked, "the personal attendant of the Ministry of the Interior. All the others are at Algiers, but we couldn't persuade old Papa Felicien to leave his post. He said that he had to stay in Paris to see that the rats didn't eat up the official papers."

● Without seeming to be aware that they were speaking of him, Papa Felicien, blinking and trotting, crossed the room with the heavy seal in his arms. He laid it down on the table, but as he turned to leave, he brushed against the desk of one of the secretaries and knocked some papers on the floor.

Excusing his clumsiness, in his queer little voice, he bent to pick them up, murmuring some unintelligible words as he did so.

And as he watched him, Louis Berson felt as though an icy hand had gripped him by the neck.

The man kneeling there to pick up the papers, and who had his back to the reporter as he did so, had a curious crown of white hair around his head, such as the reporter had seen only once in his life—and that occasion was the dramatic night he had spent in the studio with the skeleton, when the unknown visitor had come

through the trap to write the Menace letter.

He hesitated for a moment, thinking it must be some optical illusion; then, with a single bound, he rounded the table, brushing aside the horrified Premier, and fell on the old man.

"This time!" he shouted, "you won't get away."

Pandemonium suddenly let loose in the conference room; everyone was on his feet and there was a crash of overturned chairs and a clatter of feet.

"He's crazy!" cried Rouleau-Dugage. "No wonder your reporter friend saw things in the catacombs, Gromier! Now he's strangling messengers! Is there a policeman anywhere? Hold him."

Louis Berson had risen to his feet again, holding the old man by the collar of his coat and twisting his hand in the cloth as though to stifle his adversary.

"Do you know who I have here?"

Monsieur Rouleau-Dugage spoke:

"Papa Felicien. Come, come, let him go. It's all right."

Berson gave a burst of laughter.

"Yes, Papa Felicien. But let me present him under his other name—*the master of the Menace.*"

For a moment there was visible on every face the traces of the belief that Louis Berson was insane, and the President was about to ask the secretaries to hold him when a total change came over the figure of the little messenger.

With a tremendous effort he shook himself free from Louis Berson's grip, and turned toward the President with burning eyes.

"Well, and what if I am?" he spat out.

And the second afterward, with a movement so rapid that nobody could have halted it, he had produced a revolver and was pointing it at the group before him.

There was a general and instinctive movement of recoil.

"And what if I am?" he went on, fiercely. "You think you're going to get the best of me, because one of your fools knew me? What good will that do? The Menace is stronger than all of you together and your scraps of paper are too late! This morning I decreed the death of humanity. And humanity will die as certainly as *you!*"

The revolver he had waved before the group came to rest, pointing at the President. There was a cry; then three quick detonations, and as the electric lights went out, the acrid odor of smoke filled the room.

CHAPTER XVII

Face to Face

● As quickly as they had been extinguished, the lights came on again. None of the shots had found their mark, and the President, very pale, but completely master of himself and the situation, stood in the center of the room.

Against the wall, Etienne Gromier had his hand on the light switch which he had intelligently thrown when it became evident that Papa Felicien was about to fire, and Louis Berson still had in his grasp the wrist of the latter.

In the upper side of the wall were the three little round holes where the high-speed bullets had gone through.

For a moment, in that room where history had already been made once that afternoon, there was silence, then a dull sound as Papa Felicien let fall the revolver which Berson twisted from his grasp.

The noise, slight as it was, seemed to bring everyone back to his senses.

Shaking himself like a man who has just wakened from a dream, Papa Felicien gave Berson a glance full of hatred, then turned toward the group.

"Well, and what now?" he screamed, his falsetto voice breaking on the high note in a manner that grated on the nerves of his auditors. "My mistake; I was too much surprised. In any case, one life doesn't matter in the world today."

Releasing his prisoner momentarily, but without taking his eyes from him, Louis Berson bent to pick up the revolver. His shoulders bent, his head thrust forward, Papa Felicien seemed like an orator facing a hostile audience. There was in his

eyes a terrible hatred that made one shiver.

"What have I to fear from any of you today? I will have my hour of triumph, and believe me, it is near."

He gave a burst of sardonic laughter.

"And to think that you imagine you will be done with the whole thing if you get rid of me."

Etienne Gromier, who had not spoken since Berson's discovery, remembered the years during which the old man had worked cheerfully and faithfully for him, and thinking to bring him to his senses by recalling them, spoke.

"No one is trying to get rid of you," he said, "and for my part, Papa Felicien—"

As though he had been touched by a live wire, the man whirled around.

"I am not Papa Felicien!"

He began to laugh again.

"True! You knew me only by that name. For you officials I never had a family name. And now look how funny life is—poor old Papa Felicien holds all your fates in his two hands. I understand that the shock must make you dumb."

Louis Berson, who held the revolver in his hand, thought that the moment to intervene had come.

"Very well, then, I will speak to you, since I am the only one who knows you, and I will call you by your real name—Monsieur Dermoz."

The old man's eyes came to rest on him. He had started, and there were wrinkles in his forehead. He blinked at the reporter, seeking to reach his thoughts, trying to find out how much he knew.

"Yes," he said finally, lifting his head, "I was right to be beware of you. I knew then that you would be dangerous. But who told you my name? Ah, if by any chance—"

He stopped suddenly, unclenching the fist he had lifted.

Louis Berson had not moved.

"Monsieur Dermoz, I simply wished to say to you that Monsieur the President of the federated French-speaking republics, will be glad to forget your nervous action and to confer with you."

Rouleau-Dugage, who was a little to one side of the rest of the group, for he had just emerged from under the table where he had hidden when the revolver was produced, put his hands to his head. Events were moving all too fast for him, and he seemed unable to arrive at any clear idea of what was going on.

"Papa Felicien is going to confer with us!" he sneered. "The departmental messenger at a table with the President! But this is nothing but foolishness; are you going to stand here and let this—"

An icy glance from the President cut him short.

"Certainly," acquiesced the latter, turning toward the messenger. "If you will be good enough to sit down—"

For a moment the old man remained motionless, then he shook his head.

"No," he said, "it is too late."

"Too late?" inquired several of the others together.

On the table in front of the President lay the treaty to which all of them had affixed their signatures, but which had not yet received the impress of the seal of state.

Turning toward it, the old man read it silently, then threw it down with a gesture of disdain.

"Too late!"

It sounded like the famous raven of Edgar Allan Poe.

"Then you refuse to take a single step for the saving of humanity?—this same humanity which has just declared universal peace and complete disarmament?"

The old man gave a shrug.

"Too late! And beside, of what use is it?"

He was leaning on the back of a chair, and now, going on in a monotonous voice, and speaking so low that it was necessary to make a real effort to hear him at all, he rambled on. He had picked up the Magna Charta of world peace, and as he spoke, rolled it between his hands, and then tore little bits from it, till there remained nothing but a pile of little frag-

ments of paper, white against the rose-colored rug of the room.

"Chimera! Chimera!" he said, as though speaking to himself. "A concession wrung by fear from the nations which will deny them tomorrow. What likelihood is there really that wild animals will renounce preying on others? Man is a wolf, a tiger, no more. It is better that he disappear from the earth forever. Yes, I dreamed of this—to obtain the happiness of the world through the use of the Menace. I believed that the first warning would be heeded, and that the nations would rally around the cause of peace. And what did I see?—nothing but the hardening of every heart. And today I see nothing but the result of simple fear—a gesture void of all sincerity, for man himself will deny what man has done. No; better that the race should perish!"

● The spectacle of the little old man, only yesterday a miserable departmental messenger, a simple cog in the great administrative machine, and today playing with the thought of the end of the human race which he alone could prevent or precipitate, had something strange, something almost hypnotic in it. He resembled one of those ancient Jewish prophets, hurling his anathemas against the whole world. The difference was that this time the anathema seemed in a fair way to be executed. The delegates had formed a little group around the President, a strange fear gripping at them.

The German delegate was the first to speak.

"What can we discuss with a madman like that? Kill him like a dog and see what happens to his threats then!"

He did not give back a step before the angry faces that surrounded him, but lifted his head.

"You poor fools!" he said intensely. "Do you imagine that anything can stop what has already begun?"

Suddenly, a fury seemed to seize upon him.

"Listen, you idiots who imagine that with me dead, the attacks on your cities will end! Kill me if you wish. I will die content, but you can be sure of one thing; no one can halt the termites but me! If I am out of the way, they will go on with their work; they will undermine your houses, your cities, your factories, until fear obliges everyone to leave them as they have already left this accursed city. And if you imagine you will find a refuge in the country, you will be deceived. The insects will follow you there, will destroy your trees, make your fields into deserts, and you will all die of starvation. And don't imagine that the other countries that have been immune so far will give you any refuge. The Menace is the horde; it is innumerable; there are billions of them. They will follow you everywhere; they will pursue you until there is not one stone left on another in your cities or a living man on the planet."

As he spoke, a strange exaltation seemed to have taken possession of the old man. His eyes rolling, a trace of foam on his lips, he gave the impression of a man about to fall in a fit.

Then he stopped, blinked, and seemed to come once more into contact with reality.

"And you will all die," he concluded in a low voice. "Do you hear them? They are coming, the Menace, the horde, the termites. All your cities will go down. And I, I will have done it."

He turned from the group with a gesture of disgust, and without anyone trying to stop him, stepped toward the door.

"Let me go. I have nothing more to do here."

It was Louis Berson who saved the situation. Taking a step forward, he barred the way.

"No," he said simply. "The skeleton who writes your letters would be astonished to see you now."

The old man recoiled as though from a blow.

"The skeleton!" he cried, "then you were—"

He did not finish, but stood still, his eyes fixed on the reporter, who continued.

"There's plenty of time. The trap door only opens in the night. You can make it later."

A shadow of pain came into the old man's eyes. He recoiled again.

"You were there," he said in a low voice. "You were in her room, and God knows—"

Suddenly he sprang on Louis Berson. For an instant, the reporter, taken by surprise, gave back under the onslaught, but he recovered himself rapidly, and hurled the old man from him. As though aware of the uselessness of another attack, the old man stood before him, trembling, his hands clenched.

The reporter understood that he had touched the weak point in the armor. The man might be immovable to an appeal in the name of humanity, but he loved his daughter.

"And does she know that she also is condemned to death, and will die of hunger like all the rest of us?" he railed. "Aren't you going to give even her a chance?"

The hands of the old messenger rose toward heaven.

"All must die. You, myself, her also. The race must disappear. She hates humanity for its injustice and its love of bloodshed. She helped me in my work. But if anyone touches her before . . . Let me go."

"No," repeated Louis Berson firmly. "Not now. You might interrupt them. Later."

The little messenger blinked and looked at Louis Berson.

"Later?" he repeated, "Interrupt them? What are you talking about? What do you mean?"

He seemed the prey of some strange interior disturbance. Berson felt that he had touched him again.

"I am talking about the people you were to meet at a house you know very well—25, Rue Jean Dolent—at a quarter to two."

Louis Berson thought for a moment that the old messenger was about to faint.

"I wasn't going to meet anyone," he croaked, "and no one has any right to go there. It is false, what you are telling me. You lie."

Understanding that something they did not well comprehend was reversing the situation, the delegates stood silently, listening to the conversation between the two men.

"That is not quite the opinion of someone who ought to be here, but isn't" answered Berson. "If you will go to the room where the skeleton is, perhaps you will be less certain that I lie."

The little man was breathing hard. He looked around the group and finding them uncomprehending, turned once more to the reporter. Some interior combat seemed to be going on within him.

"Let me go!" he repeated, his voice almost breaking.

"No," replied the reporter, shaking his head, "Perhaps there's a better way than that."

The little man wrung his hands. Louis Berson went on.

"You certainly have some way of communicating with 25, Rue Jean Dolent. It's very simple. Get her to come here."

"She?"

"Yes, 'she!' She who, at this moment, and for what reason I don't know, is talking to someone whom you or someone else summoned there. She is the only one who can tell us about it."

Of the whole sentence only two words seemed to reach the old man's brain.

"Someone else?" he repeated, and seemed to be seized by a nervous trembling. "Someone else? My God, if—"

● Feverishly, breathing hard, as though he had been running, fumbling in his movements as he tried in vain to hide the agitation that had made him its prey, he drew from the pocket of his coat a receiver which he attached to the heavy official chain around his neck.

"A pocket-receiver!" murmured Louis Berson in Gromier's ear. "I understand now why he spent so much time over that

chain. The accumulator must be in the plaque."

For a moment the old man seemed to hesitate, then he threw a tiny lever and held the apparatus to his ear.

Instantly the sound of a tiny ringing, hardly perceptible, was heard in the room, like the clamor of a far-away alarm-clock.

But the sound had a peculiar effect on the little messenger.

A cry was wrung from his lips.

"The signal!—the signal!" he babbled, upsetting a chair with a convulsive movement.

The receiver had slid from his hand and swung from the end of the chain, but the tiny ringing went on.

An enormous change seemed to have taken place in him. He was no longer the inspired prophet out of the Old Testament, announcing the day of the last judgment, but a poor old man with feeble legs.

He looked around the room once more with agonized eyes, and then abruptly made for the door.

"Let me go; let me go," he begged, and as Louis Berson did not make room for him rapidly enough, he cried.

"But don't you understand what's happening? It's the signal of distress from her; and it comes from over there, from her studio. Someone is attacking her."

And the old man raced through the door for the stairway.

"I'll go!" cried Louis Berson, and opening the window, which gave on the garden, leaped through it in an instant.

Within the room only two men preserved their coolness of head, the President and Etienne Gromier.

Without a word, the former Premier hurled himself for the door.

"My car is down there," cried the President after him, understanding what he intended.

A moment later, he was leaping into the machine and giving the address to the chauffeur. Another car was already on the way ahead of him, but clinging to the spare tire at the back was Louis Berson.

CHAPTER XVIII

The End of the Catacombs

● It was nearly two o'clock, and in her little studio in the Rue Jean Dolent, Viviane Dermoz, seated on the edge of her divan, was thinking. For several days she had been the prey of a sentiment unfamiliar to her, a sort of lassitude, accompanied by a strange contentment.

She searched back through her childhood for a reason, and saw once more the little city in central France where her father, then a professor of physics and chemistry, a good deal older than her mother, busied himself with the studies which were his reason for existence and which furnished a subject of merriment for some of his pupils.

"Old Man Vibration," some of them called him, while others made it less gentle and rated him as the "old wobbler."

And who could take his wanderings seriously, when in that odd falsetto voice that made him already a subject of ridicule, he blinked his eyes, and affirmed that the day would come when all languages would be unnecessary? The cellular vibrations of the brain, he kept insisting, were sufficient for all communication between men, and would eventually supplant the spoken word.

If he had stopped there, they would have been content to indulge him by taking his predictions as one of those harmless scientific crotchets that learned men indulge in. But when he went on to try to demonstrate that the thought-vibrations of insects and animals were the same as those of men, and that one day they also would be understood, the old man seemed simply insane.

In Paris, such talk would have gone on without exciting any particular notice, as long as the professor did his work correctly. But in that little city of central France, they were the subject of all the gossip and did much to promote the hilarity of the townsfolk.

"Old Man Vibration! He's the only person in the world who could have such crazy ideas!" And ridiculed by some,

mocked at by all, the old professor had gone on with his researches, not letting himself become upset by anything or anybody, accepting all the sneers and side remarks without seeming to pay attention.

Viviane remembered that strange night when she had seen him leaning over her childish bed, his voice hoarse with emotion as he murmured to his daughter.

"I've found it! I have it! I have discovered how to capture the vibrations. In a little while I will be able to decipher them. The wall that separates personalities is torn down."

He had hugged her close, and she remembered having gone back to sleep without in the least understanding what he was talking about, and having dreamed that her dog, Micky, was telling her a fairy-tale.

"Don't speak to anyone about it!" he had warned her insistently the next morning. "The whole thing is still imperfect, and when I really bring it out, I want the proof to be beyond any question."

Unfortunately, from that moment on he had been unable to divide his time equitably between his laboratory and his work of instruction. Incoherent lectures, words that meant nothing to those not in the secret were repeated here and there. People were worried to see him standing for hours, bent double over an ant-hill, or smiling over a frog or hedgehog he had caught in the fields. Parents complained that their children were being left entirely to their own devices, receiving neither knowledge nor discipline. And one morning, as he left his laboratory, where he had spent the night, to go home, the old professor found a note from the Education Department on his table. He was dismissed—like that.

The blow, which he had not for an instant foreseen, was a cruel one. His future was far from assured. Carried away by his passion for research, he had laid nothing aside, and was overwhelmed with debts.

He became the prey of a terrible fear; his creditors might come around to seize and sell his instruments and laboratory collections. Most of them were instruments designed and made by himself, and which had been the means of his making the great discovery. In the grip of this fear, the unworldly little man became cunning; he visited everywhere in the town assuring everybody that he would remain in spite of his dismissal and carry on his labors on his own account, and meanwhile cleverly packed everything up. One night he suddenly disappeared, taking with him everything he valued; that is, his instruments, his notebooks, and his daughter, Viviane . . . . And now the girl with the mutilated finger remembered without bitterness, but with a sort of grey melancholy of outlook, the years the two of them had spent, wandering from place to place, halting for a few moments when there was some hope of employment, then taking the trail anew with the creditors always close behind.

And meanwhile, the old professor took any job that came along; by turns he was a laborer, bricklayer, night watchman—nothing mattered so long as he could find bread for the child and keep hunger far enough from his own body to carry on his researches.

Viviane remembered the curious furniture among which she had grown up: electrical machines, ultra-violet lights, induction coils—all mingled, higgledy-piggledy, with papers, dirty dishes, and clothes thrown about here and there, without the old professor paying the least attention to them.

Finally, chance had smiled on them; they had met the man who was to have such an influence on their lives.

At that time he was a doctor, but he had abandoned his practice to pursue his researches, and no more than the professor did he leave his laboratory. The gossip of the neighborhood where he lived accused him of the most horrible vivisection experiments—and quite truly, for a shadow passed across the face of the girl as she remembered some of the things she had been forced to watch and the cries that still haunted her sleep like so many nightmares.

All the same, it was due to that man that they had been able to bring their errant existance to an end and find a little peace at last.

The old professor, happy to have found a human being in whom he could confide his hopes and dreams, had told the doctor all about his work. The doctor was not less excited by the possibilities the professor's discovery opened in his own line. And both of them, seized by a kind of scientific frenzy, gave themselves wholly to the problem which they had solved, but not yet perfected to the point of scientific accuracy.

Time had gone by, a time of which Viviane remembered only the vaguest details, for her life seemed concentrated around the laboratory, where something mysterious was going on. There had been also a time when her father somehow raised the money to make a trip to Central Africa, leaving her behind; and it was on his return from this journey that he had taken the post as messenger of the Ministry of the Interior. For a long time she had wondered why he did both things, and it was only recently that she had begun to understand a little.

For, under the influence of his new doctor friend, a change seemed to have taken place in the old professor. He, who never seemed to care whether other men existed on the earth or not, and who spent all his time bent over an ant-hill, had begun to dream aloud of a humanity in a new golden age, and seemed to become positively ill when he read in the newspapers of international disagreements, wars, or disputes of any kind.

● She had seen the great idea grow within him, till it reached the point where there was room for nothing else in his thoughts.

"I will give peace to the world!" he had cried, clenching his hands, and then he would lift his head and say—"but I wonder whether they will accept it or whether I will be obliged to force it upon them."

Viviane, who only knew a little about his labors, could not keep from smiling at such language, which she took for that of a dream, but her father would look at her with such intensity that she would turn away, the smile dying on her lips. There was something irrational about her father at these times, something that made her tremble within herself.

As soon as she had reached the age when she could leave the cheap boarding school where she had had her preliminary education, her father had insisted she enter the Sorbonne, and take a little lodging of her own.

It seemed that he wished to keep her away from the doctor, and Viviane had been glad of the change, for the character of her father had changed, insensibly, to become more and more like that of the first.

As for the doctor, there was something about him that always made her shiver; especially, when she saw the caged dogs destined for his laboratory and heard him murmur:

"Ah! If I could only work on a man! A man! Then I would have the secret."

Viviane had followed the line of study her father chose for her, particularly the courses given by Professor Heyman on vibration, although the old professor described him as a bungler who had only begun to touch the edge of genuine knowledge. And when she brought home her notes from his lectures, the professor fumbled through them feverishly as though he were afraid the other would follow his own line of research and anticipate his discoveries.

But each time, he would lift a smiling visage from the notes.

"The idiot!" he would cry. "Roaming around in theory! Nothing but theories! Whereas I put them into practice."

And thus their life had continued, in this strange dualism. On the surface, nobody saw but the one man—old Papa Felicien, a little aged man, clumsy and ridiculous, who was a cause of so much amusement to the visitors at the Ministry, and who could be seen taking his evening walk, shambling along in his ill-fitting coat and old shoes.

But beneath there was another man—the scientist of genius.

And finally, there had come the unforgettable evening when the old professor had revealed to his daughter his great project; that of forcing humanity to accept world peace.

He had explained his reasons. When he had been to Africa several years before, it had been only to prepare everything for his great effort.

"I was able to discover the secret of the termites," he explained, "and compared to them, humanity is still in its infancy. Their intelligence is remarkable; they are drilled, organized to the last degree of perfection. They obey a single intelligence; and when my plans are complete, I will furnish the directing intelligence and we will see."

Viviane, alone in her little studio, remembered the thoughts that had passed through her then. At first, her father's great idea had seemed attractive, but on reflecting over it, it had become less good and ended by filling her with a sort of dumb horror. But what could she do or say against the one person she loved and who loved her, her own father?

And for that matter, what did her own feelings matter? It might be best, after all, as her father had said. So she decided on a policy of silence and loyalty.

But then she remembered something that made her shudder again. Melpomes! Melpomes, in the doctor's laboratory, where she had gone in, understanding only vaguely what was in progress. She could not shut from her mind the picture of that agonized figure and those horrible cries, the pain she had been unable to do anything to relieve. Thank God that she had been able to save the other.

At the memory she reddened slightly.

She remembered the night when she had found him hidden in her studio; somehow she felt no indignation, but derived a strange comfort from the thought of his coolness, his presence of mind. Ah, if she were only able to speak to him, to confide in him.

She turned and glanced at the trapdoor through which he had disappeared, and from which he had come after having finished his explorations in the catacombs. Why had she not been able to wait and confront him? Since the abandonment of the city by its population, she had covertly watched him several times; he had been in that neighborhood, passed her windows, had even come and shaken her door. But she had not moved and he had gone on, evidently thinking her vanished from that city of death. She wondered whether she would ever see him again.

As she was sunk in this thought, she gave a sudden start.

The trapdoor was moving.

She was sure that her father was at the ministry at that time, and that no one else knew the secret.

No one but—

She gazed more fixedly at the trap.

A hand had come through it, holding up the heavy piece of wood. The opening grew wider, the trap swung back with a bang onto the floor.

But its sound was insufficient to drown the cry of the girl.

● The person who had come through the trap was now perfectly visible, and it was neither her father nor the reporter, but the doctor—the mad doctor!

With another cry, she leaped to her feet and raced up the stair to the gallery, feeling her feet like weights, her blood icy with terror.

She saw the man look slowly around the room with eyes utterly void of expression, and then turn toward the stair and begin to climb deliberately.

He said nothing, only moved his lips, from which there came no sound.

She saw him come slowly up after her, his empty eyes always looking at some vacancy beyond her shoulder.

Finally he reached the level where she stood with her back against the wall.

"If he comes nearer," she said to herself, "I'll jump over," but as he put out his hand, she felt such a wave of terror that her limbs refused their office.

She would have fallen if the other had not sustained her.

Then she felt that he was picking her up, carrying her down the stair.

"What does he want with me?" she thought.

The man went steadily toward the trap.

Suddenly the remembrance of the torture-chamber where she had heard Melpomes crying came into her head, and panic gave her a brief moment of strength.

"Help! Help!" she screamed.

The man stopped as though surprised, and then, placing his hand over her mouth, murmured the first words he had spoken:

"Don't worry. Don't be afraid, little girl. It's all right; it's for the advancement of science."

She recognized the phrase with a new thrill of horror. It was the one he always used when he had captured a dog for vivisection.

She struck him suddenly in the face with both hands, and with a desperate wriggle, managed to escape from his grasp. But the struggle was useless; she had hardly taken two steps before he gripped her by the throat again.

In the struggle, she had been backed up to the table. Now, with her last strength, she managed to throw a little lever. Instantly a tiny bell began to ring somewhere, but she did not hear it, for she had fainted.

CHAPTER XIX

The Closed Door

The auto carrying the former Premier was just turning into the Rue St. Jacques when a call halted the chauffeur. Etienne Gromier had noticed another car, apparently abandoned at the side of the street, and on its radiator-cap was the flag of England.

He leaped out and hurried over to it; was about to fling the door open when a horrible sight struck him motionless.

Inside, on the floor of the car, was a human body, bent double, and bathed in blood. A woman's body it was, the blonde hair of which was disarrayed with struggle.

His heart beating fast, Gromier opened the door and, picking up one of the woman's hands, bent over her. He replaced it with a shake of the head. The hand was already cold, and a horrible wound showed the reason. Her throat had been cut from one side to the other, and in her dead eyes there was still some trace of the panic fear of her last moments.

Etienne Gromier looked over the car rapidly. Nothing had been upset; even the brief-case of the English ambassador lay in a corner of the back seat, disdainfully discarded by whoever had perpetrated the attack.

But of Sir Horace Mersey himself there was no trace; nor was there any apparent reason for the murder of this poor little English stenographer from the Foreign Office, whose existence was certainly a hindrance to no one.

Etienne Gromier considered the business rapidly, but without being able to arrive at any satisfactory solution. In any case, his macabre discovery altogether changed the aspect of the whole business, especially with regard to the reasons for Sir Horace's absence from the conference.

But why was his car standing at the corner of the Rue Jean Dolent, and who had trapped him in this fashion?

Etienne Gromier did not spend much time over the problem. With a glance of pity at the body of the poor little secretary, he gently closed the door again, climbed into his own car, and a few seconds later was at the door of the studio at 25, Rue Jean Dolent.

Another car was already ahead of him, standing before the door with its motor still running, but void of occupants.

On the doorstep was Louis Berson, his ear tight against the door, as though eavesdropping. He glanced around at the sound of the approaching car, and signed to Etienne Gromier not to speak.

"He's searching the studio to find some

trace of her," he whispered to the former Premier, "but I imagine it won't be long before he lights on something."

The moment after, he seemed to make up his mind and, pushing open the door, plunged into the room, followed by Gromier.

The studio was altogether as he had seen it on his first visit and, in spite of himself, something seemed to touch his heart at the memory. Only this time everything bore traces of the struggle that must have taken place. A table had been turned over, together with the vase of flowers that had stood upon it. A hanging on the wall had been torn half loose, and the inhospitable form of the skeleton was lying across the floor, its extended arm pointing toward the trapdoor.

The former Premier started at the sight, but Berson reassured him.

"That's the mysterious hand that wrote the Menace letters," he explained briefly. "But look, you would almost say that he was pointing out the direction for us."

The old man was gone. Berson sprang rapidly to the trap and listened.

"I hear him," he announced. "He's quite a ways ahead of us, too. We must work fast, or we'll lose him."

Suiting action to words, he had plunged into the dimness beneath, going down the rungs of the ladder two at a time. Etienne Gromier followed him.

"Have you got a gun?" questioned Berson, as they turned the corner of a passage.

Gromier shook his head silently, and the next moment felt a revolver pressed into his hand.

"I have mine," said the reporter. "This is the one Papa Felicien tried to shoot the President with. It still has four or five bullets, I think. Be careful; almost anything can happen here, and we may be running our noses into a trap."

The two men followed along silently. Against the black wall, the pocket-torch carried by the reporter cut out a pale circle of illumination, lighting up segments of the strange little tunnels that had so interested him during his first excursion through these passages.

As Berson had been before him, Etienne Gromier was impressed by the warm moistness of the atmosphere and the curious factory-like sound he heard, but he said nothing.

Ahead of them they heard the footsteps of the old man ringing in the corridor, accompanied by an almost animal-like sobbing and incomprehensible phrases.

The whole thing was a scene from a nightmare; those sounding steps, the murmured incomprehensible words, the murk blackness that surrounded them.

For a moment the sound of the steps ahead of them stopped, and Louis Berson, extending a warning hand to halt his companion, listened. But they resumed again, went around a corner and——

A cry escaped from the lips of the former Premier in spite of his effort to restrain it. They had reached the ancient underground quarry where, pale, monstrous and fantastic, there rose before them the fortresses of the enemy.

"The central termitary!" announced Berson.

Almost instinctively, Etienne Gromier paused.

As he bent over one of the openings, there was the sharp whistle of alarm from within, and like Berson before him, he started back as the strange and formidable head of one of the guards appeared in the orifice.

"They are the soldier termites who keep watch," explained the reporter. "They have been warned now and the whole termitary knows there is danger for them. But let's not waste our time here. Come along."

Picking their way through the mass of edifices that stood across their path, the two men came out into another corridor. Before them, perhaps three hundred yards away, they were able to make out a narrow bar of light that severed two walls of intense darkness. The old man they were following had broken into a tottering run, and a chorus of exclama-

tions, rapid and unintelligible, were escaping from his lips as he raced along.

● At the end of the train, perhaps ten minutes after he had climbed down the ladder, the old scientist came to a halt, and with his electric torch, began to examine the wall before him. The reporter and Gromier, who had come to a halt behind him, saw him play the light from top to bottom along the side of the passage as though he were looking for something. Then he whirled around on his tracks, came back a little, and halted before another spot on the wall.

Suddenly he flung his hand out and seemed to grip something. A cry shattered the silence, and the man suddenly bent on his knees and tumbled flat to the floor, dropping his torch, which went out as it came into contact with a rock.

For a moment the two men hesitated, but for a moment only. As they reached his side, they were able to see what they had not noticed before; the old man held between his clenched fingers a fragment of cloth. And, caught between two jutting rocks at the side of the passage, was another—a piece torn from a woman's garment.

The sight seemed to work like magic on Louis Berson. In a flash he understood what had happened.

"Quick! Quick!" he cried. "We must bring him back, or we'll arrive too late."

As he spoke, he knelt beside the old man and, with a hand that trembled as he worked, unbuttoned his coat and tore open his collar.

"He must have air."

Etienne Gromier almost instinctively obeyed the orders of the reporter, while Berson, lifting the arms of the old man, began to agitate them in the motions of artificial respiration.

Their efforts soon brought about the desired result. A little color began to come back into the old man's cheeks, pale in the electric light, and a few seconds later his eyes opened and blinked up at them weakly.

"Where is she?" he murmured.

The sight of the two men bending over him seemed to astonish him at first, and then, as recollection came back to him, his face took on an expression of hatred.

"They're here!" he said, as though speaking to himself, "and for this moment, they are better than I am. And all this while, he has taken her away and God alone knows——"

He swung his arms up with an effort and then, supporting himself on his hands, climbed to his feet and began to scratch along the wall.

The other two men had not moved. Their eyes fixed on the old man, they watched his slightest movements, as he chose one of the stones projecting from the side of the passage and tried to work it as though it were the handle to something. Berson, who had understood, threw the light of his lamp on the task and it lit up the moving fingers, fumbling busily with the black stone.

Nothing happened. The fingers came to rest, then touched the fragment of cloth caught between the stones.

"It was that way," murmured the old man, hardly audible. "And he shut the partition behind him. But how did he find out the secret? He must have followed me. My God! And what he can be doing to them now—"

He placed his ear against the wall as though he hoped to hear some sound from behind it. The cries of pain, like those Melpomes had given, perhaps? He heard nothing, apparently: taking his head in his two hands as though he would tear it off, he sat down heavily.

"My God! My God!" he repeated, and then clawed at the wall again.

Louis Berson approached the stone the other had maneuvered and tapped it. Instead of the dull sound he had expected, it gave forth a metallic ring.

"Clear enough," he remarked to Etienne Gromier, who still stood silently at his side. "This part of the catacombs must have been closed off, and to perform his work the better, these people have replaced a section of the wall by a cleverly concealed steel door. That piece of cloth

there shows where it is. The other one, whoever he is, must have carried off the girl through it. And he must have closed the door from the inside and locked it in some way so that we can't get through, or else smashed the mechanism. What shall we do?"

In his own turn, he clenched his hands in futile agony, remembering what he had seen in there, when he lay on a bed near that where the murderer Melpomes lay, and thinking of the girl in the power of the man who had conducted his experiments on that personage.

The old man was staring at the door, muttering incomprehensible phrases, as though he wished to make it open by sesame known to him alone.

Unable to do anything, and burning with the desire to be doing something, Berson turned on his heel and took two or three rapid steps along the passage that opened to one side. His foot touched something; he turned the torch downward, and gave a cry of astonishment. What his foot had touched was a leather object of considerable size; he bent to pick it up, and gave a cry.

What he had in his hand was the pocketbook of Sir Horace Mersey, the British delegate to the conference.

Rapidly, as he understood the significance of his discovery, Louis Berson turned back to the little messenger and shook him by the shoulder.

The man seemed to wake up. Opening his eyes wide in the glaring light of the torch, he turned to face the reporter. The latter did not give him time to speak.

"Dermoz," he said, choosing his words carefully, and forcing himself to speak slowly in spite of the turmoil within him, "do you know what I have here?"

The old man examined the object and then shook his head.

"I found it," continued the reporter, "only a few paces from here. Now, do you know who it belongs to? It belongs to Sir Horace Mersey, English delegate to the Conference."

The old man's forehead took on a series of wrinkles as though he were making an effort to understand.

"Yes," Berson went on slowly, accenting every word so that it would penetrate to the full, "to Sir Horace Mersey, who received a message this morning, and who disappeared shortly afterward. And you, Dermoz, took him that message."

The last sentence, in spite of Berson's effort, apparently did not reach the mind of the old man. A single word seemed to have gone through him; he turned, with his mouth open.

"Disappeared!" he cried, his mouth working rapidly. "Sir Horace Mersey disappeared, and his pocketbook is here?"

He closed his eyes as though someone had given him a blow on the head, and then opened them again with a cry.

"But then—she is lost! He's torturing her! My God! Don't you understand? He wanted two people, a man and a woman. And now he has them. He's going to try the big experiment, the experiment he always wanted to make. He thinks he's God!"

● He seemed to give way to despair.

With a convulsive sob, he would have fallen to the floor again if Berson had not restrained him. For a moment the two men struggled in silence, but the reporter was the stronger.

"Imbecile!" cried Louis Berson, shaking him in a rage. "And this is the man who condemned humanity to death! And while his daughter is being tortured and perhaps killed he stands here trying to butt his head against the wall! Answer or I'll kill you! Is there any way of levering open this door?"

The old man shook his head.

"No? Well, then, is there any other way to get into that laboratory? There must be another entrance."

A little light seemed to penetrate into that strange and self-centered brain.

"Yes, yes!" he cried. "There is another. But can I find it?"

The voice of Louis Berson was harsh.

"You must! Think of your daughter.

Remember that every minute you delay—listen, can't you hear her?"

The old man's arms were flung up as though to ward off a blow.

"Come, this way!" he said. "My God, if we are only not too late."

Gliding out of the reporter's grasp, he turned away into the dark along the passage they had come, but when he reached the great termitary, instead of going on toward the trapdoor, bifurcated off in another direction.

Turning suddenly around a termitary that reminded one of Notre Dame with its two towers and massive central body, he came to a sudden halt at a place where three passages met. For a moment he hesitated, running from one to the other like a dog that seeks the proper track.

Then he decided and led on down the right-hand one of the three, walking rapidly, and once more murmuring unintelligible words and, without paying any attention to the two who were following him, dashed ahead. Thanks to the reporter's lamp, however, they were not far behind.

Twice more he hesitated as to what route to follow, and on the second occasion even seemed at the point of turning back to hunt out another road. But then a thought lit up his face.

Turning toward Louis Berson, who was watching him anxiously, he said:

"Shoot!"

For a moment the reporter hesitated, wondering what the old man meant, then as the latter gave an impatient motion, produced his revolver and, pointing it down the corridor, pulled the trigger.

The old man listened carefully and then shook his head.

"Shoot again," he ordered, pointing down the other corridor.

The reporter obeyed.

As though in answer to the sound of the shot, there came a far-away repetition of it, after several seconds.

"The echo," thought Louis Berson.

But already, with a kind of grunt, the old man had hurled himself into the passage from whence the echo had come, and in spite of his age was hurrying along it at what was almost a run.

Louis Berson saw him suddenly stumble and almost fall, but catch himself in time. Throwing the ray of his lamp in that direction, he perceived that they had reached the end of the corridor, and that a circular stairway was before them.

The old messenger was already on his way upward.

At the summit, he halted a moment; as the rays of the torch shone around him, he bent to the floor and, pulling back a series of bolts, lifted at a heavy trapdoor that barred the way.

Berson and Gromier were forced to come to his aid to get it up.

Before them, at the foot of a few stairs, there was a narrow corridor ending in a grey door, evidently an unprotected door, for the old man gripped the handle at once and, turning it softly so as not to make the slightest noise, swung it open.

Louis Berson gave a sudden start as he saw the room, lit by the crude glare of naked electric bulbs, that was before them.

He recognized it. It was the room where he had been held prisoner and where Melpomes had been tortured. And the continual sound of motors and the penetrating vibration was everywhere. But before he could speak, there was a cry, a feminine cry that went up and broke on the high note.

"Father! Help! He's killing me!"

CHAPTER XX

The Man Who Tried to Be God

● The two men who had followed him hurled themselves into the room behind the little messenger, but came to a sudden stop at the sight before their eyes. Both of them were brave men, but both felt themselves grow pale.

The second room, whose door had just been opened by the messenger, was all white, white with a blinding glare so brilliant as to hurt the eyes. One of its walls was occupied by an electrical machine, which purred continually, and

whose purpose it was impossible to discover. Wires connected its poles with the other corners of the room, and it was the sight of these other corners that had filled the new arrivals with horror. For each of them held a bed covered with metallic cloth and on each of these beds lay a human body.

One of them, which gave no sign of life, and whose head hung off the edge of its bed toward the floor, was easily recognizable. It was the unfortunate Melpomes. And there could be no doubt, either, about the occupant of the neighboring bed, whose head was covered with a kind of steel mask and whose wrists were attached to the edge of the bed by steel handcuffs. It was Sir Horace Mersey, the delegate of the British Empire.

A man in a white coat, and with disordered hair, was bending over the third bed, hiding the figure of its occupant, to whose arm he was attaching an electric wire, while he manipulated a scalpel in the other hand. But there was no possible doubt as to who lay there.

For as the person held there gave another scream and made a convulsive effort to break loose, the voice of the man in the white coat rose for the first time.

"Don't be afraid, little girl, don't be afraid. It's for the advancement of science."

The sound of the voice, and the cry that accompanied it, seemed to break the paralysis that had seized upon the little group.

With a shout like the sound of a wild beast, the little messenger leaped forward, only to come to a sudden halt. The man in the white coat had turned, and Louis Berson recognized, as he had expected, the man with whom he had talked in the depths of the catacombs a few days before.

He had turned around calmly at the sounds behind him and, without seeming in the least astonished at this sudden intrusion, he lifted one hand.

"Be careful," he said, "be careful. The wires will get tangled and she'll be electrocuted, and then we can't carry on the experiment."

Louis Berson and Etienne Gromier had stepped forward cautiously, but the attitude of the little messenger was enough to show them that these words were no vain threat. They had not been pronounced in a threatening tone, for that matter, but simply as a matter of information, as though the man before them thought it the most natural proceeding in the world. It was obvious that he was living in a dream-world of his own, and did not consider for a second the possibility that anyone might object to what he was doing.

The old messenger, his fingers clenched convulsively, seemed unable to take his eyes from the figure of his daughter.

As she half-opened her eyes, she was able to see him, and Louis Berson had the impression that a momentary light of hope seemed to pass through them. But the moment afterward, the eyes closed again and she fell back limply.

Bound down by the wires that attached her to the abominable machine at the rear of the room, she lay on the metallic bed, half-clothed, with metal bracelets encircling her wrists and ankles and a band of metal across her forehead.

As though he were lecturing to a group of students in a classroom, the madman in the white blouse began to speak in his slow, monotonous voice.

"With this last one you gave me, I had to wait too long, and the germ-cells were dead, although, God knows, I followed your instructions to the letter. But you were determined not to give me the contrary cells I really needed for the experiment, and all my labors went for nothing. This time, I have reached the end I was after, and you will see. Just a little while ago, I got hold of the male cells I wanted, and I would have had the others, too, if the woman who was with him had not resisted so hard that I had to be rough with her, and I fear her cells are dead. But now I have her. There is nothing to keep me back any longer. I have won. I am as good as God! Do you hear? God!"

As his lecture went on, he had brand-

ished the scalpel in one hand. Louis Berson perceived that he wore rubber gloves.

Turning back to the inert body, he tightened up the binding post of one of the wires and, leaning over as though he were listening for something, paused for a moment. It seemed that he heard what he was after, for, with a smile of contentment, he turned back to the group.

"The world has waited long for this hour," he remarked, almost casually, "the hour when man will be able to create beings more intelligent than himself, and repeat the experiment an infinite number of times. It all lies in the cells; you must change the cells. For the termites, it's a simple matter. For us, though— Do you remember how little you really got? You discovered the vibrations of thought, but always the great mystery, the central mystery, the interchangeability of cells, was beyond you. And nevertheless, as you yourself have noticed, it is a fact. They take a neutral or sexless individual, these termites, and accordingly, as they wish, they make it into a soldier, armed with mandibles, a worker, or a queen, or a male. And yet you said that it would be discovered how they did it one day, in spite of the fact that you could not interpret their vibrations sufficiently to find the procedure.

"And now, look; I have found it.

"I know why the experiment didn't succeed with the other, and why he died. It's because I didn't pay enough attention to the blood vessels. But I won't make that mistake again. I have my two types of cells, and I'm going to make them react against each other. Even while I'm talking to you, the work is going on. I'm glad you came in time to witness my triumph. Now I'm going to bring the blood of the male in contact with the positive vibrations while I place the negative in contact with the heart of the other. Look, I'll create, like God!"

He moved toward the machine. At the same moment there was a cry, and the little messenger, incapable of containing his emotions any longer, leaped on the mad scientist, gripping at his throat.

● For a moment they rolled on the floor in imminent danger of crashing into the machine, but so tangled together that the other two dared not intervene. But the mad doctor had the strength of his insanity. There was a brief crack as he banged the head of the old man against the floor, and then he rose.

"Ah, ha!" he laughed. "You're jealous because I'm going to be like God and you are Satan! Well, look here now and see what I can do in spite of you."

Without glancing again at the two men behind him, he reached toward the machine and, before either of them could make a motion, closed a switch.

Instantly the snoring sound of the machine became louder, while the young girl's body, under the influence of the current, shook as though she were trembling. Louis Berson had the impression that a sound came from her lips.

Turning back toward his victim, the mad doctor bent over her with a horrible smile of contentment on his lips, then turned back toward the others. Louis Berson saw a frightful thing; his fingertips were touched with blood. He had made an incision into the girl's right arm and attached a wire on the end of which was a little metallic sponge. Then, picking up his scalpel, he bent over her again, with the obvious intention of carrying out his announced program of reaching the heart. But he never reached it.

For, understanding what he was doing, Louis Berson, in spite of the warning the man had given in the beginning that interference might electrocute the girl, took the great chance and, throwing up his revolver, fired.

The ball struck the scientist in the side of the head. He gave a convulsive reflex movement and, hurled backward by the force of the bullet, fell to the floor, his arms extended like a cross, and, as luck would have it, without bringing down any of the wires in his fall.

Without another glance at him, Louis Berson leaped to the electrical machine and threw open the switch that the madman had closed the moment before. The

sound of the machine abruptly decreased, though without altogether coming to a stop.

He looked around feverishly, searching for the contact that would turn off the machine altogether, when he felt a hand grip his ankle.

It was the old messenger, who had pulled himself across the floor by some miracle of his failing strength.

"The wire!" he gasped, "the wire!"

Louis Berson followed his pointing finger and saw the wire he meant; evidently that which connected the machine with the source of its current.

The contact was invisible, but Louis Berson wasted no time in following it along to find one. Placing his revolver against the wire where it entered the machine, he fired quickly three times. There was a metallic clang; the wire fell loose with a shower of sparks and the machine slowed down to a halt.

Aided by Etienne Gromier, Berson was already bending over the bed where the girl lay and was tearing loose the wires which seemed to hold her down like a veritable spider's web.

They did not resist long and, lifting the arm into which the mad doctor had plunged his scalpel, the reporter began to try to stanch the flow of blood.

The wound was not a deep one, fortunately. Evidently the girl was suffering more from shock than from any actual injury.

A voice rose behind him, trembling.

"Is she alive? Let me take care of her. No one else must touch her."

It was the little messenger. His face and head were all bloody from the struggle and his abrupt contact with the floor, but something in the expression of his face had changed. It was no longer the visage of the Old Testament prophet who had cried doom on humanity; it was only that of a poor old man who loved his daughter.

Louis Berson hesitated a moment, and then, remembering that the old man was a scientist, silently made way for him, and turned toward the other bed, where the body of Sir Horace Mersey reposed and where Etienne Gromier was already laboring to detach the electric wires and undo the fastenings.

It was perceptible at once that the English delegate had suffered considerably less than the girl. There was no wound in his arm, and a constitution of iron had evidently aided him to throw off the effect of the horrible experience he had just been through.

He sat up in the bed as the wires were detached and smiled at his liberators.

"Just in time, gentlemen," he remarked, stretching himself. "I fancy that another quarter of an hour would have been too late. The experiment our friend here was trying would have been over, and God alone knows what he would have made of me, if he had made anything of me at all but a corpse."

He stood upright with considerable difficulty.

"Has either of you a cigarette by any chance? I've been dying for a smoke for the last hour."

Etienne Gromier extended his cigarette case. As he did so, the Englishman recognized him.

"Ah! You here, my dear Minister!" he exclaimed, falling back on the bed. "But what in the world is going on here? And will you tell me how you got in?"

Etienne Gromier explained in a few terse phrases. Sir Horace waited till he had finished, without showing the slightest sign of emotion till the former Premier came to the discovery of the abandoned auto, a fact of which Louis Berson himself was ignorant.

"And my secretary?" interrupted the Englishman.

Etienne Gromier hesitated, but that was enough.

"Dead?" inquired the delegate, looking him squarely in the eyes.

Etienne Gromier nodded. It was a painful moment.

"She was a heroine," said the Englishman, stirred. "She has given her life for her country, for humanity. Without her—but I am interrupting you. Please go on."

Etienne Gromier finished his story and there was silence in the room once more.

● Facing the strange electrical machine and in that white room whose brilliance hurt the eyes and almost injured the nerves thanks to the intense illumination, the meeting of these three men had about it something of the character of a fantasy. It was like a scene in the chamber of some medieval alchemist, or a meeting of conspirators for some mysterious plot.

"And now, what do we do next?" inquired the British delegate, speaking as though he were only saying something, anything to break the silence.

Etienne Gromier shrugged his shoulders.

"Don't know. There is only one man who can do anything for us. And he's over there, taking care of his daughter. What does he intend to do? Nobody knows."

The three men turned toward him. The little messenger, pale as death, and seeming to have aged by twenty years, turned toward them.

He seemed about to speak, opened his mouth, and then closed it again, and finally reached a decision.

"You win," he said slowly. "Not for you, you understand, but for her. I renounce. Let man live. I will grant civilization one more chance."

Etienne Gromier stepped toward him, but the old man held up his hand. It shook.

"I'll tell you what to do. But you must do it soon . . . ."

"Pardon," said Etienne Gromier, "but is this the place and the time—? Why not come back to the conference and let your words be broadcast to the world."

The old man shook his head. His eyes seemed clouded, and he supported himself against the door with difficulty.

"What have you to fear? I give you my word of honor—"

The little messenger regarded him fixedly and then wavered on his feet.

"No. I'm dying. In ten minutes it will be too late . . . ."

CHAPTER XXI

The Supreme Intelligence

● A strange smile seemed to play across his face for a moment; he glanced at the body of Melpomes, then made a wavering step toward the bed Sir Horace had occupied and fell upon it.

Then closing his eyes, he began to speak, in a voice so low that the three men found it difficult to make out what he was saying.

"You win. But don't believe that you really won anything. I'm doing it for her, because she wants to live, because she wants to carry on. But you must act quickly; soon it will be too late. If they establish another central, or two more, you can never stop the plague, because you can never find the others. You can stop it now, but there is only one way to do it—you must get at and kill the supreme intelligence of the termites. That will end the Menace; there will be nothing more to really fear. There may be other assaults, but they will be spasmodic and without direction—the ordinary attacks of insects. But you must get at that supreme intelligence and before it can establish a new intelligence somewhere else. You can find it now, but if you don't you will never find the new one."

He had half-risen as he spoke, opening his eyes wide. There was a burning light in them—the light of the pride of a scientist which nothing can bring to earth.

Around the metallic bed, in the strange white room, no one had moved. It seemed as though these two statesmen, these politicians felt they were in the presence of a force greater than themselves. Neither of them would admit it, but they both felt a pang of terror.

Louis Berson alone had remained perfectly calm. At a sign from Etienne Gromier, he had pulled out his notebook, and was busily taking down the words of the little messenger.

"You can blow up the great termitary," the latter went on, "and you can destroy all the smaller termitaries they have established everywhere. But that won't be

enough. It won't help at all; they will all be reconstituted where you can't get at them unless you reach the supreme intelligence that I established for them."

He laughed curiously.

"I know; you are going to ask what this supreme intelligence is that directs the action of so many individuals, and when you do find it, you will think you have found nothing. Don't try to solve the mystery. Our bodies are nothing but collections of sixty trillions of cells, all bound together by a supreme intelligence like theirs, and which cannot escape their grouping until the intelligence is destroyed. In the same way there is a central intelligence that says to this termite or that—you will be a soldier, or a worker, and this will be your task. They were creatures of instinct, of a minor intelligence until I—I gave them their first central."

The little old man stretched out his arms as though appealing to the termites to confirm his words and remained for a moment staring into the distance. What was he thinking about? Nobody could have told, but there was a sort of happiness in his glance. All at once he trembled, and Etienne Gromier thought he was going to fall. But it was only a preliminary warning. A moment later, he went on.

"And man thinks he is the supreme product of evolution! Men are fools. The termites will show him the way. One cell, one man, comes into being, combines with others, has his individual mentality. But higher and greater than all is the collective mind, the mind that regulates the termitary and will regulate the affairs of humanity when men at last understand that they are all parts of the same great body.

"There are some thinkers and philosophers who have imagined this, I know, but I have wrung the secret from Nature itself, and I have used it in the effort to make all men brothers. Why have they not been able to understand?"

Etienne Gromier felt it necessary to say something.

"They have understood. The treaty of complete disarmament just signed by three of the greatest nations of Europe has been joined by others and the word 'war' is being driven out of the dictionary."

The little old man gave a smile of skepticism. He remembered the room at the Ministry, with the fragments of the torn treaty littering the floor.

"Perhaps. But a concession wrung by fear means nothing."

He stopped and seemed to reflect. Etienne Gromier began to wonder whether he could hold out. He made a step toward him and placed a hand on the old man's shoulder.

"Humanity is waiting for your words," said the former Premier. "How can we get at the supreme intelligence of the termites?"

The old man's breathing became faster. His fingers clenched; he did not seem, at the last moment even, to wish to reveal the secret for which he had sacrificed so much.

"There, beyond the great termitary where the queen termites are, in the center of Paris, there is a vault where no one ever goes. Those who established it there believe that it is impossible to enter, and it is, from above the ground. But for the little race, the race that builds its tunnels under the earth, the protections are futile. They have dug out their way to that spot and it is there that the supreme intelligence is established."

"But the vault?" questioned Etienne Gromier, frightened at the signs the old man gave of approaching death. "Where is it?"

His eyes haggard, he stretched up a hand in a feeble movement.

"Gold! Gold!" he repeated. "Bars of gold. All the wealth of the nation. Enough money to give happiness to every man and woman in France."

Etienne Gromier thought rapidly.

"The vaults of the Bank of France?" he burst out, only half believing in what he said.

The old man lifted his head.

"Yes, the vaults of the Bank of France. In the central room, in the center of the

piled-up gold ingots, which have been wrung from others at the cost of wars. There, in the center, in the empty space between the piles. The supreme intelligence."

Etienne Gromier thought the man was beginning to wander.

"But you haven't been there! No one can get in there."

"You forget that I know these termites and that their thoughts are no secrets for me."

"Go on, then."

"There are well hidden tunnels leading to the outskirts of that termite sanctuary. But there is only one tunnel that goes to the central vault. Within, at the four cardinal points, soldier-termites with queer heads watch. There are four of them, no more, for they know there is little to be feared there. And the termites themselves dare not go beyond the guards that are posted around the supreme intelligence. Kill the soldier termites."

"But after that, what next?" inquired Etienne Gromier in an exasperated tone, bending over the old man. "Speak, tell me what we will find in the space guarded by the four soldiers."

The old man looked him squarely in the eyes, as though the question were a surprising one.

"What will you find?" he murmured. "Why, nothing."

"Nothing?" repeated Etienne Gromier, with astonishment.

"Nothing at all. It's the soul, the mind, the intelligence of the termitary, which directs the whole thing. But it is not a physical being. You cannot build up an intelligence, a controlling emanation of the whole termite body out of matter. It is impalpable, an affair of vibrations. But when you get there it will already be dead, for your very presence will destroy the vibrations of which it is composed. Like all mysteries which one profanes, it will simply perish."

● Etienne Gromier gripped the old man by the arm in an effort to shake him back to his senses, for this discourse, beyond doubt, contained not an atom of sense. But he had not time.

The old man's head rolled back, his eyes closed, he seemed to collapse inward upon himself; a trace of foam appeared on his lips, and he spoke no more.

Etienne Gromier, bending over him, did not move for a moment. But the British delegate, who had stood by in perfect silence throughout this strange interview, knelt by the bedside, and unbuttoning the old man's coat, placed his hand over his heart.

"Dead!" he said, after a moment, looking up at the others.

Then, with a sigh, he continued slowly.

"I wonder whether he really revealed his secret or whether it was only that his mind was wandering."

There was a dramatic silence in the room, a silence so heavy that the sound of a footfall made all three men start and turn. Before them, so pale that she seemed like a walking corpse, her hair about her shoulders, an infinite weariness in her eyes, stood Viviane Dermoz, looking from one of them to another.

Louis Berson made a rapid movement to conceal her father's body from her eyes, but she had seen it nevertheless, and knelt beside the metallic bed.

The head of the old man, surrounded by its aureole of white hair, had taken on an astonishing majesty in death. He seemed to be only sleeping.

She took that head in her hands, and lifting it slowly, placed one kiss on the forehead, then replaced it with infinite care and knelt there for a moment with closed eyes.

Perhaps she was thinking of the past; perhaps she was praying. Nobody spoke, and each of the others, with that feeling of discomfort one has in the presence of another's unhappiness, stood by, with his heart filled with pity.

Finally Viviane rose and turned toward Etienne Gromier.

"Did my father tell you his secret?" she asked, hesitantly.

Gromier bowed.

"Before he died, he remembered that his daughter had a right to live."

A faint flush colored her cheeks.

"Then you must hurry," she went on. "Every hour you delay may be fatal. When I was in the hands of that lunatic, he cried out that the supreme hour had come and that his great experiment would coincide with the end of humanity; he said something about establishing new intelligences everywhere, and it must be something he overheard my father say and was simply repeating. You must really hurry."

The three men did not even think of discussing the question. Turning toward the door, they prepared to leave the room where so many horrible things had gone on, and whose only tenants were now three corpses.

The girl turned back for a last glance at the room and at the man who was her father; but she was at the limits of her strength. She staggered and would have fallen had not Louis Berson been at hand to catch her in his arms.

For a moment he held her, and he had the impression that she clung close to him.

But perhaps it was only an impression, for a moment after, she lifted her head and walked steadily into the passage where the others were waiting.

CHAPTER XXII

Circulation Restored

● Is it necessary for another writer to go over the days that followed, in which a frightened world struggled against the plague, at first without any certain hope of victory, but afterward, as gains were made little by little, with more strength, intelligence, and courage, until the certainty of success became final?

No one has forgotten those painful days, among the most painful our world has ever seen. The combat in France was carried on by Etienne Gromier, once more called to the head of the Government and invested with dictatorial powers by the chamber. He had Paris occupied by the army and sent companies of military engineers into the catacombs with orders to follow down all the termite tubes and proceed to the systematic destruction of every termitary.

For two months the work of destruction went on uninterruptedly and ruthlessly, without any attention being given to the art treasures and old monuments that were brought down at the same time.

It was during this period, as is well remembered, that one of the Deputies at Algiers, a representative of the corporation of artists, reproached Gromier with the destruction of the Luxembourg Museum and all the magnificent pictures it contained. The premier replied with a single sentence.

"We are making war."

And as a matter of fact, it was a perfectly genuine war, a war of the most determined character, in which both antagonists were pitiless. It was a case of destroy or be destroyed, and it is to this fact that the present owes it that it is unable to see those fine buildings that were the joy of our ancestors and the artistic heritage of our nation. And meanwhile in Germany, in England, and in Italy, the same struggle was going on, less serious because the plague had not spread so far as in France, but not less intense.

It was in the course of one of these radical programs of destruction—the blowing up of the old Sante Prison, which has been replaced today by the Woodrow Wilson School for Girls—that the secret of Melpomes' escape, or kidnapping, was finally discovered.

As the engineers were following along the line of a termitary's tubes to the central body, it was discovered that the headquarters of this group was located exactly under the old prison.

A passage leading out of the termitary, apparently traced out by some intelligence higher than that of the insects, drew the attention of the engineer-captain, and he followed it. To his profound astonishment, he discovered that it ended in a steel door, remarkably well camouflaged, and set into a wall.

He tried to open the door, but without

success, and finally had it forced. When he passed through, he found himself in a cell that was by no means difficult to recognize—the death-cell of the Sante prison.

Although the whole thing is a matter of conjecture, it seems clear that this particular termitary had been established in its spot beneath the prison at the express direction of the Master of the Menace who had made his insect-assistants dig out the passage. As condemnations to the death penalty are rather rare in our days, the cell was seldom occupied, and he had plenty of time to install the door in the side of the cell with the help of the mad doctor.

With this much done, they had only to wait till some murderer was placed in the cell, and the unhappy Melpomes was the first.

It seems likely that on the day before that set for the execution, the doctor had been the man who asked to visit one of the guardians who spent their time in the cell with Melpomes. His pass was doubtless furnished by the old messenger from the Ministry itself. When he got in the cell, he had simply broken his bulb of anaesthetizing gas, and with the two guardians thus placed out of commission, had seized up Melpomes, probably also unconscious, and walked through the concealed door. Once inside, he had broken the mechanism of the door.

. . . . and thus for two months, termitary after termitary was destroyed. But always, no matter how determined the efforts, new ones appeared again. It was like Hercules' battle with the Lernian Hydra which grew two heads to replace each one cut off.

And then, one day, without anyone being able to explain exactly how it came about, the enemy ceased to reappear. They seemed disorganized, abandoned the combat all at once. . .

I suppose the question will be debated through the scientific journals for the next several centuries whether the end of the plague really came with the destruction of the Supreme Intelligence, or whether it was simply a coincidence with an event in which many saw nothing but a useless gesture.

Had the old messenger told the truth in his last moments, or was he simply rambling?

Nobody knows—but here are the official facts, as agreed to by everyone present and as officially printed in all the history books, facts that nobody pretends to doubt.

On the fourth of September, 1987, Etienne Gromier, Premier of France, who spent his time flying back and forth between Algiers and Paris, accompanied by the commanding general of the engineer corps conducting the defense of Paris, the Minister of Armaments and Louis Berson, who had been specially invited as an attaché of the Premier, penetrated the sub-cellars of the Bank of France at half-past four in the afternoon, and guided by the Regent of the bank, proceeded to the secret vault where the gold ingots that back the franc and represent the wealth of the nation are concealed.

● After having passed through several armored doors defended by the last resources of modern science with everything from poison gas to automatic guns, they reached the gold room and sought the central place of which the old messenger had spoken.

At the four corners of the space, there was exactly what the old man had described; four giant termites with fantastic and monstrous heads, which stood at the four cardinal points of the compass, on guard.

As the party approached, they emitted their characteristic whistling appeal, but it was already too late; a few blows and they were dispatched.

This much done, the men in the group looked at each other, wondering whether they were the victims of some deception. As the old messenger had said, there was nothing there to see—the room was empty except for the bars of gold.

But in spite of all the skepticism and the arguments that followed, it is possible

to date the success of the struggle against the termites from that day.

Everyone now remembers the months of general joy that followed as it became more and more certain that the plague had been vanquished.

There was a series of expositions and celebrations of the birthday of world peace and the fraternity of nations. A meeting at Geneva was attended by representatives of every country in the world, and by common accord, it was decided to tear down all monuments recalling wars. The movement was vigorously backed by the artists of the world, who were particularly desirous of having the abominations that were erected in the name of patriotism after the war of 1914-1918 destroyed.

Carried away by the same enthusiasm, the educators of the world held a meeting and voted to rewrite all the histories used in the schools to present such military heroes as Caesar, Alexander, and Napoleon in an unfavorable light or to omit them altogether from the new books. The project was enthusiastically carried out.

Only one shadow clouded the period of general joy and thanksgiving in France —the death of Ernest La Folette, the poet, who, when the city had finally been rescued from the invaders, had been asked to leave the apartment he had taken up in the Louvre. A note he left declared that having lived as a King of France he could never stand it to return to civilization.

But the shadow cast by his suicide was a transitory one; moreover, at the moment everyone was discussing the question of changing the name of Paris to the one word that was then on every tongue—Peace.

Unfortunately, a few miserable questions of self-interest had to rise to disturb all the grandiose dreams of this happy period.

At the Geneva meeting it had been agreed that the nations would all contribute *pro rata* to the rebuilding of Paris, the city that had suffered most from the termite ravages and through whose sufferings world peace had finally come about. Unfortunately, there was some argument over prorating the amount each nation should contribute as several of them were in a state of overproduction at the time and wished to get rid of a large surplus of products. They asked for preferential treatment for their over-productive industries. Thus England opposed the project of Belgium and Germany to furnish the reconstituted city with its supply of coal, and an argument arose between Japan and the United States with regard to the supply of cotton and manufactured goods.

At first it was only a mild international disagreement, but as there was some proof of sabotage and even worse, first Japan and then England decided to retain for the time being some of the warships whose destruction had been voted, using these vessels to convoy the supply ships.

That was only the beginning. As the destruction of the warships was delayed, other nations began to retain some of theirs, and finally Brazil, representing to the international council at Geneva that the Argentine had retained one more battleship than she had, decided to build a new ship to match the one retained by the neighboring nation.

This move was followed by the reconstitution of some of the coast defenses of several nations to protect themselves against the navies of others, and soon after by the increase of several armies to better supply these coast defenses with troops.

The human race had recovered from the shock.

And Louis Berson, reporter for *Nouvelles du Monde* was present in the Chamber, by the side of his young wife, a girl still dressed in mourning, when the deputies enthusiastically voted funds for the construction of three new super-super vest-pocket cruisers, with the declaration that the French nation must fulfill its historic destiny.

THE END

THE GROWTH PROMOTER

By Paul K. Chapple

(Continued from page 703)

clutch at his heart as though seized with a paroxysm of pain? *Was the story true? Had her guardian been the scientist who she thought could only be a fictionary character?*

Then Leo and Mark and Eric and Karl were—

"Webbie," Nada's voice was strangely low—her brown eyes glistened with sudden tears. *"Webbie—"*

Silently, the anguished girl slipped through the door and down the corridor and out of the house; she could not stifle the oppressing sobs that rose to her throat.

Back in the laboratory, Dr. Albert Webster lay prostrate, the victim of heart failure. Locked forever in his stilled breast was the memory of five infants—four boys and a girl; his dying thought envisioned that little girl, a beautiful baby which he could not bring himself to subject to the "growth promoter." She had been too sweet and too perfect and so he had allowed her to mature naturally . . . .

And in the dull shadows of the odor-laden chamber where the scientist breathed his last, four mute assistants stood as though frozen by the breath of Death; one by one they crumpled to the floor. The brilliant mind which had dominated their brains had expired—the spell was broken—their weird lives were ended.

THE END

The Martian Cry

By L. A. Eshbach

Red dust enfolds our world,
A crimson blight
That fills our empty seas with arid Death.
In dull despair we sink through wells of night
So deep, so dry, we choke and gasp for breath.
Unending thirst flows flaming through our veins,
Destroying life and hope,
Yet hope lives on,
And raises croaking prayers for cooling rains
To lave our burning sphere till drought is gone.

We see a green and youthful world in space,
The lusty Earth,
With water it can give
To check the doom that menaces our race,
And help the dying planet, Mars, to live.
Canals and seas are thick with dust, and dry.
We must have water,
Earthmen, or we die!

Science Questions and Answers

THIS department is conducted for the benefit of readers who have pertinent queries on modern scientific facts. As space is limited, we cannot undertake to answer more than three questions for each letter. The flood of correspondence received makes it impractical, also, to print answers as soon as we receive questions. However, questions of general interest will receive careful attention.

THE ASSOCIATE SCIENCE EDITORS OF WONDER STORIES

are nationally-known educators, who pass upon the scientific principles of all stories.

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Professor A. L. Fitch
University of Maine

PSYCHOLOGY

Dr. Marjorie E. Babcock
Acting Director, Psychological Clinic, University of Hawaii.

ZOOLOGY

Dr. Joseph G. Yoshioka
Yale University

Time Belts

Editor, SCIENCE QUESTIONS AND ANSWERS:

I have a small question which I have been puzzled about for some time. It is a simple question and I think I know the answer to it, but I wish to have someone else confirm my opinion.

Here is the question:

There is a radio program I hear broadcast from California once each week at night. This program originates in New York City. It is sent from the New York studios on this certain night. The program begins at eleven p. m. and ends at eleven-thirty p. m. sharp. By the time it reaches California, the time which is changed in the different zones makes the program be actually broadcast from California at 7:00 p. m. to 7:30 p. m. sharp, a loss of about four hours in the difference of time between New York and California. As we in New York hear the program at eleven p. m., it has gained four hours in time from California to New York.

What I would like to know is how is it possible to hear the program telephoned from New York to California and then broadcast from California to New York at the New York destination exactly the same time it left New York? There is a loss of four hours and then a gain of four hours, making it even, but how about the rest of the time lost between points?

GEORGE GORDON CLARK,
Brooklyn, N. Y.

(In the first place, the radio program broadcast from New York at eleven p. m. would be re-broadcast from California at EIGHT o'clock and not seven, standard time used throughout, as there are only four time-belts in this country. Example: 11:00 Eastern, 10:00 Central, 9:00 Mountain, and therefore 8:00 Pacific. Four time-belts means three hours difference between coasts. Therefore, the program GAINS THREE hours instead of LOSING FOUR, the Pacific time being EARLIER than the Eastern.

The loss of time caused by the radio broadcast crossing the continent twice is negligible, though there is a fraction of a second or so difference, which is not enough to consider. Radio travels at the speed of light, and light can go around the world seven times in one second. Telephone communication is slower, but the difference over only three thousand miles is not very noticeable.

As an experiment, you, in Brooklyn, can tune in WTIC at Hartford and WTAM at Cleveland at the same time on most radios. The stations are very close together on the long-wave band, and they usually have all the WEAF-NBC programs of any importance at the same time. Listening to this program being broadcast from two stations hundreds of miles apart, when you are closer to one of them, you will receive the impression of an echo; due to the slight fraction of a second difference between your reception of one station and the other. This delay is caused by the telephone connections from WEAF, and not the actual broadcast.—EDITOR.)

The Water of Mars

Editor, SCIENCE QUESTIONS AND ANSWERS:

1. You have explained that Mars, being a much older planet than the earth, is probably very arid as a result of losing a great deal of its water. That probably being a fact, what has happened to all this water?

2. Who, and in what manner did he (or they) accomplish the remarkable feat of determining the speed of light?

JACK W. BURGESS,
Minneapolis, Minn.

(1. Scientists believe that a planet loses its water as it grows older. At one time the entire earth was covered with water, and now we have great continents. Water is thought to evaporate very slowly into space; some of it is lost under the crust of the earth. Lightning electrolyzes some of it into hydrogen and oxygen. There are many ways for a world to lose its water.

2. In 1670, Olaus Roemer, a Danish astronomer, noticed that Jupiter's satellites did not pass into

Jupiter's shadow at the times predicted in the astronomical tables, and accounted for it by the length of time it took the reflected light to reach our eyes. Before that, everyone took the speed of light to be instantaneous, which it is to all practical purposes. Roemer computed that light travels about 190,000 miles per second, which is remarkably close to the real figure. It was not until 1926, however, that Michaelson estimated the velocity to be 187,372 miles per second, and the latest figure is somewhere around 186,200. Mile-long tubes, equipped with reflectors and delicate timing devices, are now used to test the speed of light. —EDITOR.)

Proton and Cosmic Ray

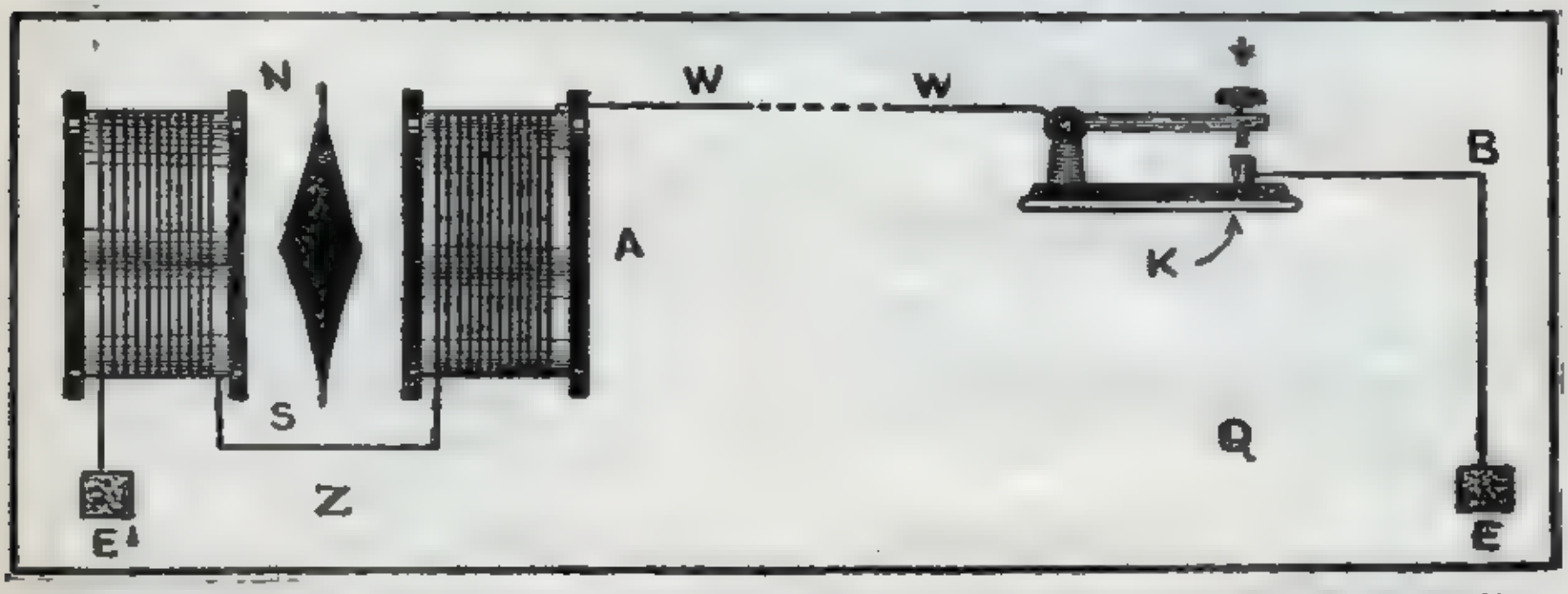
Editor, SCIENCE QUESTIONS AND ANSWERS:

Please give the definitions for "proton" and "cosmic ray."

J. KNEELAN,
Chattanooga, Tenn.

(The definition, according to physics, given "proton" in Funk and Wagnall's New Standard Dictionary of the English Language, 1930 edition, is as follows: "An electrically charged particle that is a component of the atom and of matter and carries a positive charge of electricity. Its mass varies; it is much smaller than the atom. It is complementary to the electron."

The cosmic ray cannot be found in this dictionary, because no definition has been decided upon. There are many theories concerning this ray, first mentioned by Millikan. Some believe it to be a vibration created by all the suns of space, a sort of universal radiation, which, in its full strength, would be fatal to man but is diffused by the atmosphere surrounding the earth. It is thought to have the power to penetrate several feet of lead. Unexplainable manifestations observed during atomic experiments led to the belief of the existence of these rays.—EDITOR.)



The battery, B, in the above illustration, is "earthed" on one side at E, and is in continuity with the key, K, on the other side. When the key is pressed, the current passes along the wire, W, for the contact has been made, and the coil, A, at the receiving station receives the current which causes the needle, NS, to be deflected. This "earths" the other end of the wire at E'. The tap on the key causes the jerk of the needle, producing a dot, while holding the finger on the key for a second produces the dash, used in code. The dot-and-dash code permits a message to be sent from the sending station, Q, to the receiving station, Z.

Maps of the Stars

Editor, SCIENCE QUESTIONS AND ANSWERS:

Where may I obtain a map of the solar system, and a map of the stars?

LEON STOPPEL,
Chester, Pa.

(The Hydrographic Department of the United States Navy at Washington, D. C. furnishes very fine maps of the stars, both northern and southern hemispheres, for a very reasonable charge. There is no such thing as a map of the solar system, because it cannot be drawn to scale; but any good atlas or astronomy textbook will provide you with diagrams.—EDITOR.)

The Principle of the Telegraph

Editor, SCIENCE QUESTIONS AND ANSWERS:

I don't suppose you receive many scientific questions from your female readers, so you should give this one a lot of attention.

Being but an ignorant high-school girl, I do not really understand the principle of the telegraph. Would you kindly help me out?

LILLIAN NORLOFF,
Mountainside, N. J.

(We are always glad to receive queries, few though they are, from our fair readers who are interested in science, and will do our best to answer your question.

We can call an electric current a simultaneous passage of electrons from one atom to another, and the easier the electrons can pass, the better conductor the material is. A magnetic field is set up when a current passes along a wire. Oersted, in the early eighteen-hundreds, found that when a current flowed along a wire, it had the power, through its magnetic field, to deflect a magnetic needle to the right or left, according to the direction of flow of the electricity. However, the telegraph did not really go into practice until 1837, when Cook invented it in Britain and Morse in America. The figure reproduced on this page will explain its functions more fully.—EDITOR.)

Jupiter

Editor, SCIENCE QUESTIONS AND ANSWERS:

I have seen very few science-fiction stories about life on the surface of the planet Jupiter. There have been many about races on Ganymede, Io, Callisto, and other of its satellites, but few, if any, ever take place on the planet itself. Why is this?

JOHN GULDENNY,
Jersey City, N. J.

(During the past year, we have made a drive for logical science in our stories, and that is the reason you have seen no stories about life on the planet Jupiter. The density of Jupiter is so low, according to scientists, that it consists of matter lighter than water, which must be gaseous, and with no solid ground, presumably, no life, as we know it, can exist there. Jupiter, the largest planet in the solar system, is therefore uninhabitable, although many of its satellites are as solid as the earth, and some about the same size. That is why many authors have chosen these worlds, so much, physically, like our own, for the scenes of action in their stories. There is a huge gap between Mars and Jupiter, filled only by the asteroids, or planetoids, as they are called, which are believed to be the fragments of an ancient planet probably destroyed by the gravitational stresses of the sun and Jupiter upon it.—EDITOR.)

The SCIENCE FICTION LEAGUE

—a department conducted for members of the international SCIENCE FICTION LEAGUE in the interest of science-fiction and its promotion. We urge members to contribute any item of interest that they believe will be of value to the organization.

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MEMBERSHIP applications have been pouring into LEAGUE Headquarters since the end of March. Hundreds of fans from all parts of the country—and many from foreign nations—have joined this international organization for the lovers of fantasy. The ages of members range from twelve to fifty years, and many are of the fair sex. Here are a few of the occupations held by LEAGUE members: teachers, postal clerks, radio mechanics, architects, radio "hams," brewers, sailors, laborers, miners, lawyers, chemists, authors, carpenters, farmers, coast guardsmen, scientific experimenters, embalmers, undertakers, artists, servicemen, scientists, bacteriologists, epigenecists geologists, pharmacists, violinists, mechanics, grocery clerks, storekeepers, policemen, printers, motion picture theatre employees, bookkeepers, musicians, letter carriers, electrical engineers, cigar dealers, telephone engineers, travel agents, doctors, lecturers, aviators, stamp dealers, druggists, salesmen, draftsman, court interpreters, accountants, mechanical engineers, machinists, designers, magistrates, histo-pathology technicians, real estate agents, telegraphers, astronomers, writers, physicists, entomologists, tellers, pressmen, compositors, soldiers, textile workers, shoppers, pianists, radiotricians, linotypers, mechanical draftsmen, engineers, electricians, advertisers, automotive engineers, scout masters, naturalists, commercial artists, journalists, publicity men, sheet metal workers, marines, foresters, dentists, and students in high schools and colleges. This shows that people in all walks of life are members of the LEAGUE.

MORE KELLER MANUSCRIPTS

Dr. Keller has awarded his original typescripts for "The Cerebral Library" to Frank Phillips, Jr., Member Number Nine, and "The Fighting Husband" to William H. Dellenback, Member Number Five. These manuscripts, you will remember, were offered to the first ten members of the LEAGUE.

JOIN A CHAPTER

You will find in another part of this department, a list of proposed Chapters of the LEAGUE. We urge you to join one of them. If there is none in your neighborhood, you can start one yourself, and become its Director. Every member should eventually become a part of some Chapter.

BOOK DISCOUNTS

Several members have written in asking how they can secure the discounts on science-fiction books that we said publishers will allow, when the LEAGUE was formed. All you have to do to get these discounts is write to the book publisher, ordering the book (which must be science-fiction) and ask for the discount which you are entitled to as a member of the LEAGUE. Most publishers will heed your request.

YOUR CERTIFICATE

To date, almost sixty-five members have not claimed their certificates, although their applications have been received and approved. The certificate is given free to all those who find it possible to call at Headquarters for it. However, when it has to be mailed, a mailing and handling cost of fifteen cents is charged. We urge you to send in your fifteen cents if you cannot call for your certificate. You will find it necessary to have a certificate in order to enter any Chapter, and for other times when identification is [redacted].

PAMPHLET OF INFORMATION

We have prepared a four-page leaflet adopted from our editorial in the May, 1934 issue of WONDER STORIES, which outlines the rules and purposes of the LEAGUE, with an application. These will be provided free of charge to those who wish to join and have not already done so, or to members who want to convert others. Please send a stamp to cover mailing cost.

CHAPTER ACTIVITIES

Milton A. Rothman, Member Number Thirty-Four, writes the following:

"Being the Director of a proposed Chapter of the LEAGUE, I have been thinking a lot about how to improve it. Here are some suggestions:

"Each Chapter can have a library, books and magazines being contributed by the members. There can be a fixed amount to be contributed, say, two back date magazines a month; a new magazine being equal to two old ones, and a book being equal to five.

"Have the minutes sent to Headquarters within two weeks instead of one, so that they can be approved by the Chapter in the next meeting.

"Have important personages, such as authors, go around to other Chapters and give talks. Also, if an ordinary member gives an extraordinary talk in his own Chapter, he can go to neighboring ones and repeat it.

"Have interchapter contests for the best library, collection, and the like.

"I'll have more suggestions after a couple of meetings of the Philadelphia Chapter."

You have several excellent ideas there, Member Rothman, and we can only hope that other Chapter Directors will have half the ambition that you have. Of course, each Chapter will be able to do as it likes, within the lenient rules of Headquarters, and we are glad to see that you are offering your suggestions on how to run a Chapter to other Directors who will read this. Many others will probably want to have libraries also, though perhaps with other methods of securing literature. The details, of course, will be left to the votes of the local members.

We can see your point in approving the minutes of each meeting, and therefore will allow two weeks to elapse after a meeting before they must be sent to Headquarters (copies of them), or two months if the meetings are monthly. All good suggestions in the minutes will be offered to other Chapters through this department.

ISOLATED MEMBERS

David A. Kyle, Member Number 359, says, in part:

"Many members of the SFL do not live in a big city and therefore cannot have the pleasure of joining a Chapter. A Chapter is indeed an important feature for science-fiction fans, for it helps them get together, discuss science-fiction, and express their views; without them the SFL would be disorganized. These unfortunate members can not feel themselves as a unit, and even correspondence cannot take the place of a Chapter Now this is my plan.

"Have all those who want to join a Chapter write to me I will take their names and place them together to form a district Chapter. If I receive more names than it would be advisable to incorporate in one Chapter, I will appoint some one to take care of all applicants in a certain district, say the west. With these Chapters, members could correspond with a feeling of unity and express and discuss their opinions with their brother members The head will organize the correspondence, see that every member receives his share of mail, and keep all members in action. Mr. Secretary, can you realize what effect this will have on a large group of SFL members? Now is the time to organize District Chapter Number One. Well? How about it?"

Now, we don't want to throw cold water on your pet idea, Member Kyle, but we hope to show here why it would be inadvisable to have the kind of a Chapter you suggest.

In the first place, a Chapter is a branch of a society where members can come into personal contact. You say that correspondence could not take the place of a Chapter, yet your entire District Chapter would be based on correspondence. All that such a Chapter could do would be to limit the correspondence of members, and that's one thing we don't want. We wish to let our members write to anyone, anywhere, who has interests in common, just so long as they are all members of the LEAGUE. These isolated members are welcome into the meetings of any Chapter, when they are travelling. After the Chapters are organized, their dates of meetings, with the addresses, will be published in this department, and all the identification necessary to these travelling members will be their lapel buttons. In this manner, members will have friends to visit no matter where they go, and there certainly will be a feeling of unity.

Thank you, however, for your kind suggestions.

FROM MEMBER NUMBER 416

Holmes H. Welch, one of our members in Maine, suggests the following:

"I hope that the LEAGUE will not forget the fact that science-fiction theoretically should be based on present or near-future science, and that in writing science-fiction one is, or rather, should be trying, to present a goal for the present-day scientist to work for, as, if you want to use a simile, putting an electric hare in front of a greyhound and causing it to run a short distance ahead of the dog all the time.

"I also hope that the LEAGUE will do its part in purifying science-fiction by not only condemning weird stories as unfit to bear the name of science-fiction, but by classifying the authors not only by originality, etc., but also by style of writing. At the present time, many authors are degrading influences because of bad style.

"The LEAGUE in my opinion should have one department devoted to writings before 1900, another after 1900, another to science-fiction itself—that is the class of the latter used by science-fiction writers, and lastly, a department that would deal with information on authors, science-fiction books on the market, and all incoming orders. Each department should have a head and one secretary."

The SCIENCE FICTION LEAGUE is out to boost science-fiction, and not to condemn weird tales. Weird fiction has its place in literature just as much as science-fiction, and a great many science-fiction fans, perhaps the majority, like them both equally well, because they are both fantastic and different from the cut-and-dried ideas presented in many other types of story.

Every fan has his favorite authors, and you could not make a technical classification and say that this author is a little better than that one, because you would find too many people to disagree with you. Everyone has his own taste. However, there are some authors who we recognize universally as among the best, and others that have a long ladder to climb.

As for the technical studies of science-fiction, we will leave that to the individual Chapters. Many will probably want to specialize in some era or some branch of science-fiction for a length of time, and their researches will undoubtedly prove of value to the entire LEAGUE. One of the most important functions of the LEAGUE, please remember, is to interest potential fans.

We like your comparison of science-fiction and science to the hare and the greyhound. It is a very good analogy.

SCIENCE FICTION ON THE RADIO

"It seems to me that the LEAGUE is a great thing," writes Willis Cain, Member Number 413, "and I am all for it. There must be some enthusiastic new members in this neck of the woods, to use the vernacular,

---

Application for Membership

SCIENCE FICTION LEAGUE

I, THE UNDERSIGNED, herewith desire to apply for membership in the SCIENCE FICTION LEAGUE. I have read the rules of the LEAGUE, and hereby pledge myself to abide by all the rules and regulations of the SCIENCE FICTION LEAGUE. Enclosed find fifteen cents (15c) to cover the mailing and handling charges for this certificate.

Name .....

Address .....

City and State .....

Country .....

Date .....

(It is important the reverse of this blank be filled out. No application valid without.)

who are doing some fine and fast work. For shortly after the LEAGUE was inaugurated, a notice in one of the Seattle papers appeared. It announced a 'scientific-thriller' entitled 'The Purple Ray' being broadcast three times a week from KJR, Seattle's largest radio station. After the first installment, I was breathlessly waiting for more. The story is about a German doctor, his young assistant, the lost city of Atlantis, and a light ray that has the power of picking up the light waves of the past. It is carefully produced and highly interesting. I wonder if you can inform me as to whether this is the doing of the LEAGUE or not?"

We are very glad to hear of the science-fiction story being broadcast from the West Coast. We do not think it is an act of a LEAGUE member, or he would probably have informed us. In the East we have "Buck Rogers in the Twenty-fifth Century" five times a week from Columbia stations. Radio is one of the best ways to spread science-fiction, and we hope that we can soon have LEAGUE speeches made over local stations.

ACKERMAN EXPLAINS

Forrest J. Ackerman, Honorary Member Number One, and the country's most active fan, explains in the following letter why he has not volunteered for the Directorship of the San Francisco Chapter of the LEAGUE.

"In case some people are wondering why I do not volunteer to take over the forming of the San Francisco branch, this is because—outside of the fact that mine are already such busy days with science-fiction and film work, fan magazine, correspondence, reading-reviewing, collecting, science-fiction selling, and similar activities—that, though I may always be reached through my address in San Francisco, an aggregate number of about four and a half months or so of the year I am not in the city, scientifiction-scientifilm work taking me elsewhere. So outside of the fact that my time already has definite limitations, I am not present to arrange or conduct any regular meetings. I shall be happy to co-operate, as I am able, with the organizer of the San Francisco branch of the SFL, of course, however."

No one is under obligation to form a Chapter of the LEAGUE, and we can realize that Mr. Ackerman already has all of his time taken up with other science-fiction activities. Members in Sacramento and Los Angeles have already volunteered to direct Chapters, and we would like to hear from someone in San Francisco who would like to do the same.

SCIENCE-FICTION MOVIES

If you would like the motion picture producers to make more movies of this type, write to E. C. Reynolds, 6235¼ Descanso Drive, Los Angeles, Calif., stating that you will support all such productions. Mr. Reynolds is making a list of the names sent to him, and when he has ten thousand will submit them to the film magnates as petitions for more science-fiction on the screen. Don't forget to send in your name, whether you are a member of the LEAGUE or not. Mr. Reynolds is Member Number 315.

CORRESPONDENTS

All members are free to enter their names upon this list, telling just who they would like to write to (ages and sex), where they should live, and perhaps what they should be interested in.

This correspondence list is for members of the SCIENCE FICTION LEAGUE and those entered are warned against questionable letters they may receive from outsiders. If your entry does not bring the results you desire, make your next one take in a wider field, either in ages, locality, or hobbies. No entry will appear two months in succession for the same member. By notifying headquarters when the issue appears containing your name, you may have it repeated the second month following, and by doing this every two months, have the entry six times per year. However, you will probably not wish to do this, for you are likely to secure all the correspondents you desire with the first insertion.

Douglas Kendall Fischer, 9186 Beyden Ave., Detroit, Mich., Member Number 101, would like to correspond with our female members between the ages of 16 and 18 who live in the state of Florida.

William Frankel, 1475 Grand Concourse, Bronx, N. Y., Member Number 331, wishes to strike up acquaintances among members between the ages of fourteen and eighteen who are interested in biology, particularly micrology and psychology, and the literary aspects of science-fiction. Location unlimited.

Vernon H. Jones, 1806 Sixth Ave., Des Moines, Iowa, Member Number 364, would be interested in corresponding with members who are interested in scientific motion pictures. No age limit and location unlimited.

James N. McHoul, 18a Adams St., Milton, Mass., Member Number 407, would like to correspond with boys between the ages of sixteen and twenty years in eastern Massachusetts who are interested in chemistry.

James Bryce Mearns, 171 Diamond Bridge Ave., Hawthorne, N. J., Member Number 415, is interested in bacteriology and microscopy and would like to correspond with other members of the LEAGUE around nineteen years of age having similar interests. Both sexes and locality unlimited.

Forrest J. Ackerman, 530 Staples Ave., San Francisco, Calif., Honorary Member No. One, wants to correspond with members who live in France and Germany about science-fiction movies in their countries.

(REVERSE SIDE)

I consider myself belonging to the following class: (Put X in correct square.)

Professional
(State which, such as doctor, lawyer, etc.) ☐ .....

Business (State what business) ☐ .....

Author ☐ .....

Student ☐ .....

..... ☐ .....

Age.....

Remarks:.....

.....

CHAPTERS

Here is this month's list of volunteers for the directorship of local Chapters of the LEAGUE:

BROOKLYN SCIENCE FICTION LEAGUE (Proposed). George Gordon Clark, 8709 15th Ave., Brooklyn, N. Y.

WASHINGTON SCIENCE FICTION LEAGUE (Proposed). T. J. Mead, 1819 G St., N. W., Washington, D. C.

JERSEY CITY SCIENCE FICTION LEAGUE (Proposed). Theodore Lutwiniak, 172 Pavonia Ave., Jersey City, N. J.

MOLINE SCIENCE FICTION LEAGUE (Proposed). Carl R. Canterbury, 1527 Eleventh Ave., Moline, Ill.

LOS ANGELES SCIENCE FICTION LEAGUE (Proposed). E. C. Reynolds, 3235½ Descanso Drive, Los Angeles, Calif.

LEWISTON SCIENCE FICTION LEAGUE (Proposed). Stuart Ayers, 1411 Tenth Ave., Lewiston, Idaho.

ERIE SCIENCE FICTION LEAGUE (Proposed). Jack Schaller, 324 East 5th St., Erie, Penn.

DES MOINES SCIENCE FICTION LEAGUE (Proposed). Vernon H. Jones, 1806 Sixth Ave., Des Moines, Iowa.

DENVER SCIENCE FICTION LEAGUE (Proposed). Olon F. Wiggins, 2418 Stout St., Denver, Colo.

LIVERPOOL SCIENCE FICTION LEAGUE (Proposed). Leslie F. Johnson, 46, Mill Lane, Old Swan, Liverpool 13, England.

INDIANAPOLIS SCIENCE FICTION LEAGUE (Proposed). Henry Hasse, 1236 Wade St., Indianapolis, Ind.

CENTRAL TEXAS SCIENCE FICTION LEAGUE (Proposed). Alvin Earl Perry, Box 265, Rockdale, Texas.

SHANGHAI SCIENCE FICTION LEAGUE (Proposed). A. V. Bleiden, 208 Avenue du Roi Albert, Shanghai, China.

PHILIPPINE SCIENCE FICTION LEAGUE (Proposed). J. R. Ayco, Bacolod, Neg. Occ., Philippine Islands.

PHILADELPHIA SCIENCE FICTION LEAGUE (Proposed). Milton A. Rothman, 2500 North Fifth St., Philadelphia, Penn.

SACRAMENTO SCIENCE FICTION LEAGUE (Proposed). Arthur Jones, Jr., 2717 Santa Clara Way, Sacramento, Calif.

BUFFALO SCIENCE FICTION LEAGUE (Proposed). Leo Rogers, 616 Jefferson Ave., Buffalo, N. Y.

STATEN ISLAND SCIENCE FICTION LEAGUE (Proposed). Rudolph Gentsch, 50 Holly St., Dongan Hills, Staten Island, N. Y.

ST. LOUIS SCIENCE LEAGUE (Proposed). Harold Rice, 4129 Washington Blvd., St. Louis, Mo.

When a reader would like to become a part of any Chapter, he must first join the parent body, then send in his name and address to the Director (the one who wishes to form the Chapter he wants to join). Such person should live in the district in which the Chapter is located so that he can attend meetings.

If you wish to form a Chapter, let us know, and we will publish the fact. When you have a number of names on your list of those who want to join the local Chapter (wait at least three weeks or a month for these after the issue appears containing your name) send the list to us and, providing all the names are entered as members at Headquarters, the local Chapter will be declared. Do not apply to start a Chapter in any city mentioned already in these lists. One Chapter in each city (except Greater New York) will be enough to start with. Later on, more will be organized when demand warrants it.

We will give your Chapter an official name and number. From then on, the name and address of your Chapter will be printed in every issue of WONDER STORIES, so that those who becomes members of the SCIENCE FICTION LEAGUE from time to time, who live in your neighborhood, may join, increasing the size of the Chapter. Dues or fees of any kind *may* be charged within local Chapters, in order to carry on special activities, only upon the agreement of all the members. Those members who do not wish to contribute, will not be expelled from either the Chapter or the LEAGUE by not doing so. In other words, all contributions must be voluntary, though a specific amount may be decided upon. This will be done only within local Chapters—there will be no dues or fees of any kind conducted by the LEAGUE Headquarters. Treasuries accumulated by this method may be used to issue pamphlets, hire halls or lecture rooms, or any other reasonable thing that the Director and local members see fit to use it for. This also includes outings, parties, etc. The Director or his appointee will be the presiding officer at each meeting. Assistant Director, Secretary, and Treasurer may also be elected by the local members. However, accurate minutes must be kept, a duplicate of which will be sent to Headquarters directly after they have been approved at the next meeting. Important activities recorded in the minutes will be discussed in this department, which will be the voice of the LEAGUE and all its Chapters. Meetings may be held at any frequency, everything to be decided by the local members. All helpful suggestions made by members during any meeting will, of course, be recorded in the minutes and therefore prove of value to other Chapters. There is to be no competition between Chapters—they are to co-operate, and perhaps, after a while, we will have a grand convention somewhere with delegates from the various Chapters. Would you like to be a Director of a local Chapter of the LEAGUE? There will be very little responsibility on your part, and it is not hard to find a meeting place. If you can't start off with a lecture room or hall, or one of the members' homes, then you can meet in the nearest public park until the Chapter is larger and can afford something better.

LEAGUE SUGGESTIONS

Here are a few advance suggestions of how you can help the SCIENCE FICTION LEAGUE:

(1) If you wish to form a local Chapter of the LEAGUE, get a newspaper to print a notice in the society or club section. They will do this free of charge and it will aid you in securing many members.

(2) Send to Headquarters all the suggestions that you believe will improve the SCIENCE FICTION LEAGUE and its activities. You may have some valuable ideas that will greatly aid the cause of science-fiction. This department will appear monthly in the magazine and will be used as the voice of the members and executives, so do not hesitate to use it freely.

(3) If you are a student in high school or college, try to form a Chapter of the LEAGUE in the building, with students as members. Most educational institutions allow for clubs of all sorts and would be pleased to harbor one more, especially one with standards as high as the SCIENCE FICTION LEAGUE. These school Chapters will be treated in Headquarters as any other Chapter. In order to form a Chapter of the LEAGUE, send your name to us with those of all other members who wish to form the Chapter and the name under which the Chapter will be known. We will send you an officially signed certificate, confirming the existence of the Chapter with its number.

(4) Try to write editorials propounding the merits of science-fiction in general and place them in your local newspapers. Stress the fact that science-fiction is educational and broadens the minds of the readers.

(5) Study science-fiction carefully and form a series of conclusions in your mind as to its merits and accomplishments. Organize your ideas so that you can talk freely and convincingly to potential followers on the subject. Be able to tell at a moment's notice just what it is and why you are an enthusiastic advocate. This, with Suggestion Two, is very important to the purpose of the LEAGUE. All members who are instrumental in securing any special attention to the LEAGUE will receive due acknowledgment and will find that it will be profitable to them to be so mentioned.

The LEAGUE has one prime purpose—to spread the worthy gospel of science-fiction. That is the basis of the LEAGUE, and its goal will not be reached until everyone knows of science-fiction and respects it as the most powerful literary force in the world.

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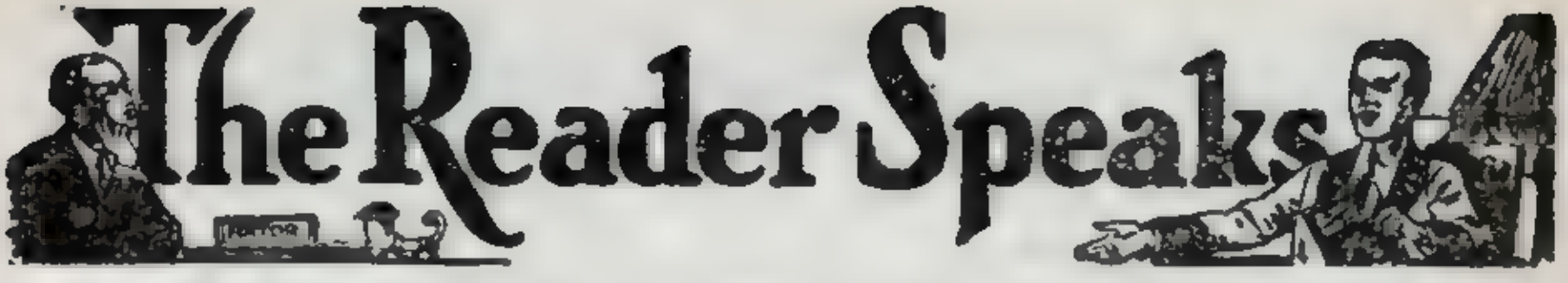

IN this department we shall publish every month your opinions. After all, this is your magazine and it is edited for you. If we fall down on the choice of our stories, or if the editorial board slips up occasionally, it is up to you to voice your opinion. It makes no difference whether your letter is complimentary, critical, or whether it contains a good, old-fashioned brickbat. All are equally welcome. All of your letters, as much as space will allow, will be published here for the benefit of all. Due to the large influx of mail, no communications to this department are answered individually unless 25c in stamps, to cover time and postage, is remitted.

REPORT OF THE 196th CONVENTION

By Hoy Ping Pong

SFL Member No. 12345678901

The 196th annual convention of the SCIENCE FICTION LEAGUE was held the week of June 45 to 51, 2182 A.D., or 197 SFL, at Ackermanville, California. A goodly crowd was there, nearly tripling the original population, but all delegates were comfortably soused, I mean housed, with the exception of three Hindoos from Skindoo, who had brought their pet elephants along. As Mayor Ackerman doesn't allow elephants in houses, the boys from Skindoo were forced to sleep in the park with their pets. The first day was spent in seeing the model city of Ackermanville. It even boasted of a large printing house, where STFICTION STORIES and MACABRE TALES, F. J. Ackerman, editor, were published. Free copies were given all delegates, but I think Headquarters later got the bill.

The second day, the convention formally opened in Ackerman Hall. Promptly at nine o'clock, President Ackerman banged his gavel on the tabletop. Unfortunately, however, a delegate from Peru had gone to sleep on the table, and the gavel descended on his head. The victim didn't complain, so after he was taken away still unconscious, the meeting progressed.

First up was Delegate Foozle from Australia. The Australian gentleman complained that he had talked 345 people into joining his chapter, but each of the 345 wanted to be Director. The gentleman wanted the President to refuse the newcomers admittance, because he wanted to be Director himself. It was a bad situation, and strategy was needed. Everybody waited with bated breath for the President's decision. To pacify the whole mob, the President formed 346 different chapters, allowed each of the 345 to join one chapter, and be Director of it. The first gentleman was allowed to keep his Directorship, and everybody was happy, because each chapter contained one member, who was Director of that chapter. Applause was rendered.

Then two travellers from Mars took the floor and gave a very vivid account of the conditions on Mars. They said that the Martians were actually starving! A motion was made to take up a collection for them, and such was done. Later the Treasurer announced the sum of the collection: 3 dimes, a plugged penny, and 2456 shirt buttons. Applause was again rendered.

The Special Investigation Committee interrupted here to inform the house that last year, after a collection had been taken for starving Martians, the Treasurer had spent the money on ice cream sodas. The President ordered the committee down however, for he had consumed some of the aforementioned sodas, and didn't want it known.

As it was lunch time, the entire house walked out then, and made for the "Ye Ackerman Cafe" across the street, where a very excellent meal was served them. Somebody suggested saving the scraps for the starving Martians, but was thrown out. Then President Ackerman presented the diners with their bills and he was thrown out.

Once started, there was no stopping. The rest of the second day was lost in revelry. A couple delegates from Egypt found a cache of rare wines in the President's cellar, and informed the town. Everybody got drunk, including the elephants.

The Ackerman Special Police, expecting just such an emergency, boarded themselves up in the city hall and stayed there until dark. Meanwhile, the merrymakers had discovered the printing plant, and breaking in just as the latest issue was going to press, proceeded to change STFICTION STORIES and MACABRE TALES, F. J. Ackerman, Editor, to suit themselves. Recent reports indicate that those two magazines never enjoyed a bigger sales boom than that issue. In fact they boomed right out of existence.

However, to get back. The delegates went about the town, shooting it up with their rocket guns and light-pistols. It required the next four days for the police to gather up the stragglers and deposit them in Ackerman Hall for the final session.

This time, remembering the accident of the first day, the President first put his hand down on the tabletop and felt for any heads that might be there. There was none, so he brought the gavel down . . . . right on his own hand. Time out was taken for ten minutes while the President informed the delegates how he felt. The Ackerman Fire Dept. was called in to extinguish the smoking rafters, so warm were the President's words.

When order had again been restored, the Missionary Reports were asked for. Five minutes were wasted trying to get Missionary Gadzook on his feet. He reported that the missionary work of converting heathen Saturnites into respectable Science Fiction Leaguers was progressing fine. He said that only last month, he alone had converted four, and out of the four only 3 later deserted. When asked what became of the fourth, he said that the unfortunate wretch died of fright, upon viewing the SFL officials for the first time.

Somebody arose and made a move that the officials mentioned be rewarded, but was booed down.

Next Missionary Ka Plump arose and reported that his work on Pluto was going fine, altho "he could use a little more money." (Applause here.) He said that he had only lost two converts out of the last hundred. When asked how he lost them he said that they had refused to kick in with their weekly salaries, and he chopped their heads off. A medal of honor was given Missionary Ka Plump.

As this ended the missionary reports, time was taken out for lunch. Remembering the skinning they had got before, the delegates shunned the Cafe, and went down street to "Ye Olde Coffee Pottee Inne, F. J. Ackermanee, Propee." One of the Skindoo elephants tried to get in also, and was stuck in the door, penning the delegates in for nearly an hour, until the Ackerman Derrick Co. came to the rescue.

Once more back in Ackerman Hall, for the closing session, the delegates sat quiet, waiting for the President to speak. He arose and began:

"Gentlemen (somebody snickered) this year's convention has been very profitable. I have a bill here for $860.12 which I will send to Headquarters and let Charles D. Hornig the IX worry about it. This covers all damages you boys have done here. I hope you all have had as fine a time as I have had, and I want to see you all out to the convention next year, which will be held in Ackermanville, North Carolina. In closing, let me say that next year's pasaword will be 'Fugwump,' and that the last train leaves tonight at 9:30. Don't miss it!"

Applesauce, I mean applause, was given at this point. True to his word, Engineer Ackerman pulled the Ackerman Flyer out of Ackermanville that night at nine-thirty, with one delegate aboard. Nobody seems to know how that one got there, but somebody suggested that he might have wandered aboard unknowingly while drunk.

Reports have since reached Headquarters that it took the Ackerman Special Police two full months to round every last delegate and send him home. The last was finally found at the Ackerman Zoo, playing Tarzan, nearly two and one-half months after the convention closed. Somebody else left his elephant, and as the freight bill to Skindoo is too high, the elephant is still wandering around Ackermanville, eating Ackerman grass.

THE END

His Family Tree

Editor, WONDER STORIES:

I have enjoyed the refreshing and absorbing stories in your publication of recent issues. As an editor, I think you have captured some indefinable note of appeal so characteristic of Hugo Gernsback's early scientific publications. The humorous stories reminds this s-f fan of the "good old days," or rather that pioneer period when the marvels of scientific fiction were so new, so exhilaratingly different, to anything in the fiction field.

In regards to a query from Jack McCuster, of New York City, it may be rather startling to most of the readers to know that quite probably I am a distant—(though very distant)—relative of the great H. Rider Haggard, though of course I am not seeking to bask in the reflection that this may indicate, since comparison to his classical literary products would be utterly out of the question. It's something like the Darwin theory, of man being kin to monkey, and with myself indicated by the simian side of the illustration. According to an authentic family history, which has been prepared and printed privately, the strain of the Haggard tribe, consisting of three brothers, arrived in America early in the colonial days, having departed from their native British Isles. Since that time the descendants of that triumvirate have scattered far and wide, and that British blood has bubbled and boiled in the "melting pot" until now we can claim to be just "American," although we're not above being proud of quite substantial traceries which indicate distant relationship to the English line honored by the well-known writer.

I understand that originally, before Haggard, the name was Ogard, and that it was a Viking of old who planted the name on England's shores, though of that I'm not certain. Pursuing the lineage back any further than that might bring a howl of protest from the evolutionists. Who knows? Perhaps it was one of our common Aryan ancestors who scrawled vestigial caricatures of the mammoth on prehistoric cave walls, or sat at night before roaring fires built before the mouths of caverns, a raconteur drawing tales from the mystery of the black mantle of night and its myriad twinkling eyes, from the enigma of life, existence, and creation, of objects physical or metaphysical, logical or psychological, as gauged by rudimentary knowledge and wondering awe of the primeval struggle with pristine Nature for survival.

Anyway, it's an interesting supposition, and perhaps one which would be more readily accepted by modern thought, which yet seems to be in much that same state of "rudimentary knowledge and wondering awe" as regards creation and existence, and which occasionally finds time to contemplate favorably such projected theories as "memory of the atoms."

J. HARVEY HAGGARD,
San Bernardino, Calif.

(We are glad to hear such complimentary remarks as you have in your first paragraph coming from one of our best science-fiction authors.

It is interesting to learn that you are related to the great H. Rider Haggard. Few people can trace their family trees back as far and as completely as you can. Your letter reminds us a lot of your stories—it is thought-provoking. Your excellent imagination is always with you.—*EDITOR.*)

A Challenge?

Editor, WONDER STORIES:

The September cover was wonderful. Paul sure knows how to draw a good cover. I am glad that I am not color-blind, for then I could not enjoy looking at his covers. However, the effect is somewhat spoiled by the many labels on the front. The price tag should be placed where it could be seen. As it is now, it is lost in the picture. And please take that label off the top. It is not true and therefore it doesn't belong there.

The stories were all good. "The Fall of the Eiffel Tower" surprised me. Most of the French science-fiction stories have been very uninteresting. This story began with vigor and I am waiting anxiously for the next installment.

"The Living Galaxy" is certainly a new idea but I wonder if Mr. Manning knows what he is talking about.

I don't know what to say about "The Tree of Evil." It is really good but does it belong in a science-fiction magazine? The last part of "Enslaved Brains" ended fine. Mr. Binder is one of your best writers.

I see that your chief competitor has reduced its type-size. Now what are you going to do? The competitor has 160 pages and is now using the type as small as yours. You have only 128 pages. Therefore the competitor is ahead of you in the number of words. Please do not accept the challenge, however, and reduce your type-size also. It would be tragic. If you keep up the good standard that you hold now, you need not worry about the size of the other magazine's type.

As usual your editorial was very interesting. I am expecting an editorial on "Wonders of Wonder."

Please give us a story by Clark Ashton Smith and one by A. Hyatt Verrill. These two writers have been missing a long time from your magazine.

NEWSY CROWELL,
Monroe, N. C.

(It grieves us to learn that you do not believe the label at the top of our cover to be true. Others have suggested that we do away with it, but because they want the room it occupies for more illustration, and not because they do not believe it to be accurate. Of course, it is not for us to go around praising ourselves, and we feel that the phrase, "The Best in Science Fiction" is more of a condensation of the opinions of the majority of our readers than a manifestation of our own vanity. At least, we know that we are demanding *new* stories, well-written, and many stories that we have rejected have been published in other magazines. You will notice fewer stories with old plots in WONDER STORIES than in any of the others—in fact, we are trying to keep out *all* hackneyed themes, and very few slip into our pages. We feel that the reader might just as well re-read one of the old stories as a new hackneyed one. Refreshing science-fiction can come only through original ideas.

About half of our October issue contained the second installment of "The Fall of the Eiffel Tower," and we felt justified in giving it so much space, for we sincerely believe that it is the greatest French science-fiction story since Jules Verne.

We wonder, also, whether Mr. Manning knew what he was talking about when he wrote "The Living Galaxy." He handed it to the editor with the comment, "Here's another story. I don't know what it is, but I hope you can use it." Of course, that aroused our curiosity, when an author couldn't classify his own work, and we found it a decidedly unique tale with a really thought-provoking conclusion. We hope that you enjoyed it half as much as we did.

"The Tree of Evil" was a typical Kelleryarn. It did not contain its science in the form of physics, astronomy, biology, chemistry, or the various other sciences which most of our stories are based on, but, like most of Keller's work, probed into the inner secrets of human nature and psychology, which is certainly a very prominent science. If that story was not science-fiction, then psychology is not a science.

We do not have to accept any challenge from our competitors. WONDER STORIES contains many more words per page, as an accurate count will show, and we therefore have more *wording* for our 128 pages than

our competitors have in 144 or 160—counting the stories and departments.

We will consider your suggestion for an editorial on "Wonders of Wonder."—*EDITOR.)*

On Our Side

Editor, WONDER STORIES:

I am writing this primarily because of the atmosphere caused by a certain letter in the September number which criticizes everything except the way the editor eats his soup . . . . a crank, in other words.

My answer to such persons is always the same and guaranteed to be a squelcher; that is, what of it? . . . no one is making you read the magazine.

In direct contradiction to his statement that W. S. has the poorest type, I will say that, after comparison with your competitors, it is the best. No other magazine of its kind that I receive has its type and illustrations reproduced more faithfully.

The covers by Paul are distinctly superior to all others. Keep the vivid backgrounds; they, above everything, reflect the spirit of the stf. stories.

The contents page, which the writer objects to so violently, is a decided departure from those of the cheap "wild west" and "thrilling detective" magazine type. By all means keep away from that rotten stuff. The modernistic make-up of W. S. takes it definitely out of that class. When I was editor of the high school annual last year, I carefully planned it along the same lines as WONDER STORIES. It was the first time that a departure from the conservative style had been tried. Need I say it went over big? You have my everlasting gratitude.

In this issue the best story was, quite naturally, "The Tree of Evil." "The Fall of the Eiffel Tower," even though a serial, is second. Which reminds me of that insulting remark made in the September issue (by the same person I have been criticizing) about importing stories from Germany. I think this person has a very bad and hopeless case of race hatred. I believe that any person so narrow-minded as to ban stories from a country just because of government conditions prevailing at the moment ought to have his head examined. He is the perfect example of the type of people that foster wars.

The third best article in this issue is not a story, but the letter by Mr. Rice Ray. That is the type of letter that belongs in "The Reader Speaks." It was extremely interesting.

VERNON H. JONES,
Des Moines, Iowa.

(Of course, the "narrow-minded" person you refer to is Donald A. Wollheim, whose letter in our September issue you criticize. You would be surprised to see the number of letters that Mr. Wollheim's missive brought into our office—some indignant and some agreeing with his criticisms, a few of which appear in this issue and others to follow.

We do not think that you are tearing Donald Wollheim's arguments just for the sake of coming back at him, but really believe he is wrong; we hope he is, anyway. Indeed, he objected to practically everything that distinguishes WONDER STORIES from the "wild west" and "thrilling detective" type you speak of. We feel that we are on the verge of a good red-hot session of brickbat-slinging.—*EDITOR.)*

Split Opinion

Editor, WONDER STORIES:

I have just finished the September issue of WONDER STORIES, and the following are my comments:

"The Fall of the Eiffel Tower" seems to be good, but it deals with a hackneyed plot, that of a menace of some sort or other.

In the notation about "The Man From Beyond," you say that this story is one success in your drive for new stories. I agree with you. It has a new, different plot and beginning. More like this.

"The Living Galaxy" is another good story by Manning.

"The Tree of Evil" isn't so bad either.

"Enslaved Brains" ended nicely, but there was one thing in it I did not like. The title of chapter xviii is "The Last Scientist." Professor Jorgen was not the last scientist. "The Last Despotic Scientist" or something to that effect would have been a better title.

I agree with Mr. Wollheim in "The Reader Speaks" that "Xandulu" is modeled after "The Moon Pool" although it is not quite so good. I too think that at times the colors on the cover have been a bit too gawdy, but this issue's cover is O.K. I do not, however, think that Mr. Wollheim is justified in forming an opinion of a story without reading it—especially as his opinions seem incorrect. I also do not think that the printing in W. S. is inferior to other magazine printing, and I like it quite well as it is.

Although I have read none of the stories Mr. Dames mentioned, their titles sound enticing, and I would like to see them in W. S. (By them, I mean the stories and not the titles).

I too am among those many who desire a sequel to "A Martian Odyssey," and I am glad to see it coming.

I did not like "The Brain-Eaters of Pluto," and do not want any more like it.

By the way, enclosed is my application for membership in the S. F. L., a little late perhaps, but you know the old adage—"Better late than—" well, anyhow, it's here.

HAROLD EWEN
Bronx, N. Y.

(The exception confirms the rule, they say, and while we rule out hackneyed plots, we feel that such a masterpiece as "The Fall of the Eiffel Tower" is well worth importing and translating. While the main idea behind the story may be old, the development is certainly new and the story is so realistic that we could not resist being the first to give this French novel to the American public. Charles de Richter is one of France's leading authors of contemporary literature.

Dr. Jorgen, in "Enslaved Brains," was the last Scientist. Notice that Scientist is spelt with a capital. The Scientists, you will remember, were a political party, just like the Republicans and Democrats of our present era. Dr. Jorgen was the last of this party, though of course not the last *scientist* in the general sense of the word.

Welcome to the SCIENCE FICTION LEAGUE! You are Member Number 421.—*EDITOR.)*

More Words Per Issue

Editor, WONDER STORIES:

A letter writing spree has me in its grip today, and I may as well sling a little ink on your dope sheet while I'm still slingin' it.

You're all wet. Why don't you stick to facts instead of using your imagination when giving WONDER STORIES a bunch of publicity? Somewhere in your September issue you ask us not to let your rival's 160 pages fool us, stating that W. S. has 750 words to the page while your cordially hated rival has only 550 (the adjectives are mine). In your multiplication you count the pages filled with advertisements, illustrations, letters, and departments, and you arrive at the astonishing answer of 96,000 words per issue for W. S. and 88,000 for the rival, a difference of 8,000 words, one short story of good length.

Let me repeat, you're all wet . . . . . Stay; it may be the advertising manager or a member of his force. If so, I apologize, Mr. Editor. . . . Here are the facts: W. S. has nearer 700 words *per page of fiction*. Not counting illustrations, etc., there are 98 pages of fiction, three of which should be taken off for blurbs and fillers. That leaves you with about 67,000 words per issue of *fiction*. Your rival has a fraction over 600 words per page of fiction, of which there are 130 pages, no fillers, but a few blanks at story endings. Knocking the fraction off the 600, that gives your rival 78,000 words per issue—a good 10,000 words more than W. S.

But stop right there, for I have a bone to pick with the rival. A promise of 15,000 words more than the 78,000 has not been kept.

It takes me about nine or ten hours to read a copy of WONDER STORIES, taking in letters as well as stories. Your rival engages my attention for nearly three hours longer. And I can read a lot in three hours.

In the September issue, among the complete stories, I rank those by Harris and Keller as tied for first place. Harris did himself proud. A Kelleryarn, at any time or place, is good to us Kellerites. Manning sold me on his work this time, by the way he told it; there wasn't much story to it. I haven't read the serials yet.

Here it may be well to note that I haven't kicked about the quality of either W.S. or your rival. My toes are tender from lack of practice and I don't intend to start toughening them this late in the game.

All this may give more than one reader the idea that I'm abnormal. Nix. If anything, the prefix is *sub*; I'm lacking in years, width, weight and thickness, and, I strongly suspect, in brains. But I'm all there when it comes to length. This letter clinches that.

(Continued on page 758)

CHARLES ATLAS
Holder of the title "The World's Most Perfectly Developed Man" won in open competition in the only national and international contest held during the past 15 years.

"Bunk!"

—says

CHARLES ATLAS

I'll Prove *in the first 7 days* YOU can have a Body like Mine!"

[redacted]ysical instructor in the World has *ever* DARED to make the offer he makes in this announcement.

DON'T get the idea that it takes a lot of time and hard work for you to get smashing strength and powerful muscular development! Don't fool yourself into thinking that you need dumb-bells, springs or any other such contraptions!

Both these ideas are all bunk—and I have PROVED it. All I need is *7 days* to prove what I can do for you! And I don't need any apparatus either. In fact, I have no sympathy with apparatus at all—don't believe in it. It is artificial—and it may strain your heart or other vital organs for life!

NATURAL Methods Are All I Need

On this page you will see an actual photo of how I look today. This picture has not been changed in any way. No muscles have been "painted on." This photograph is the camera's honest proof of what I have done for My body. I myself am ready to prove what my secret of Dynamic Tension can do for YOURS!

To look at me now you wouldn't recognize me as the same man I was a few years ago. *Then* I was a physical wreck, a 97-pound weakling—flat chested, spindly legs, arms and legs like pipestems.

I was worried — and I had a right to be. I decided to study myself, to do something about my body. Then I made a discovery. I found a new way to build myself up. A way that was simple, natural, quick and sure! "Dynamic Tension" is what I called it. I put this secret to work. And in a short time I had the kind of body you see here—the body which has twice won the title of "The World's Most Perfectly Developed Man."

This Secret Has Helped [redacted]

Thousands of other fellows now know this secret, too—and know from their own personal experience what Dynamic Tension has done for them. When they turned to me for advice, they were just as frail and puny as I once was. Now they are life-sized examples of what a man can and ought to be—with mighty energy, tireless endurance, and muscles that stand out like bridge-cables all over their bodies.

I have written an interesting booklet, filled with pictures, which tells my story—and theirs. I would like to send you a copy of it entirely free.

Let Me Send You My Free Book

I'd like you to know what Dynamic Tension has done for me—what it has done for others—and what it can do for you! This little coupon will bring you my free book, which tells all about it. There is no cost or obligation of any kind—and no one will call upon you.

I just want to put into your hands proof that I can do for you what I have done for so many thousands of others—give you broad, powerful shoulders, biceps that bulge with smashing strength, a chest which stands out solid and muscular, and an evenly developed body that will make others look like dwarfs next to you.

Will you gamble a stamp to win a body like mine? Then mail this coupon TODAY! CHARLES ATLAS, Dept. 10-L, 115 East 23rd St., New York, N. Y.

Where shall I send your copy? Write your name and address plainly on the coupon. Mail it today to me personally.

FREE BOOK

Gamble a stamp today. Mail coupon for free copy of my new book, "Everlasting Health and Strength." It shows you from actual photos how I have developed my pupils to my own perfectly balanced proportions.

CHARLES ATLAS, Dept. 10-L

115 East 23rd Street, New York, N. Y.

I want the proof that your system of Dynamic Tension will make a New Man of me—give me a healthy, husky body and big muscle development. Send me your free book, "Everlasting Health and Strength."

Name .....
(Please print or write plainly)

Address .....

City ..... State.....

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THE READER SPEAKS

(Continued from page 756)

Until science-fiction editors wake up to the fact that science-fiction readers are the most observant of them all, yours truly, and then—yours very truly.

J. L. BURT,
Greenville, Miss.

(We have made a complete survey of all the science-fiction magazines. Taking into consideration the increased number of words per issue of our rival we find that WONDER STORIES still has more reading matter than any other, though not as much more as before. You will notice that we published an article entitled "Don't Be Fooled" in our October issue, bringing out this point. We took into consideration, in this second survey, only those pages containing stories, articles, and departments—leaving out the ad pages and illustrations. Consider also that WONDER STORIES presents two departments given you by no other magazine—"Science Questions and Answers" and "The Science Fiction League."

We would not have made any mention whatever concerning the amount of reading matter in each magazine had not the readers brought it up first. When we were being constantly accused of having so *much* less than our rivals, we at least wanted to show that we do not have *less*, but *more*, and you will come to the same conclusion if you make a careful study. Incidentally, you gave WONDER STORIES slightly less wordage per page than it actually has. Ever since we reduced our size to the smaller format over a year ago, we have been figuring our pay copy at 750 words per page, though in the survey we placed the figure at 725, against our competitor's 600 with its new smaller type, and that 125 words difference really adds up to something, adding to it several department pages in six point type.—*EDITOR.)*

Readable Print

Editor, WONDER STORIES:

I received the September issue of WONDER STORIES today (July 30) and I see that Mr. Donald A. Wollheim makes some criticisms of your type and printing. During the last few numbers of WONDER STORIES there have also been other criticisms on the same matter. I agree with Mr. Wollheim that the printing itself of the magazine is quite bad, being the worst of any magazine I have seen. However, I think that the six point type you use in the back of the magazine is not objectionable. I quote the following paragraph from a noted electrical company's advertisement (believing that the type used in telephone books is six point):

"Take your phone book to the places where you read or work. Open it and see if you can read any number rapidly. You should, because *the telephone book is scientifically designed for perfect legibility under proper light*. If you have to squint or draw the book closer, you need better light."

I am therefore believing that the truth of the matter with the demand for larger type in "The Reader Speaks" is stated in the last sentence above. That would be quite humorous though. Science-fiction fans read of great new inventions, of daring and startling adventures on our world, and yet, complain that they want larger type. I would suggest that everyone who wrote to the Editor asking for larger type in "The Reader Speaks," bring back from the recesses of memory the school-taught sayings: "Let the light fall over your left shoulder," and "Never read in poor light."

But, after all, telephone books are issued once a year and their printing is done carefully on expensive printing presses. Imagine finding some telephone pages with the number blurred. The telephone companies just could not have such a thing happen. Since you are *selling* WONDER STORIES, I should think that you would either see that not too much printer's ink is put on the printing press rolls or that you engage another printing concern to print WONDER STORIES, using the same type that is now used. The latter would not be very hard since you have already moved the printing places of WONDER STORIES from New York City to Mount Morris, Illinois, and then to Springfield, Mass.

STEVEN FOGARIS,
Passaic, N. J.

(Thank you for your intelligent comments concerning the readability of "The Reader Speaks" and the other departments in WONDER STORIES. Those who find difficulty in reading the six point type would solve their difficulties by using a very inexpensive hand-lens. To use larger type would be to reduce the number of letters per issue, and we believe that the majority of our readers would not like that.—*EDITOR.)*

Theory and Fact

Editor, WONDER STORIES:

Although this is the first time I have ever plucked up sufficient courage to write to you, I have been a reader of WONDER STORIES for a considerable time.

There is one suggestion I should like to make, and that is that you should check up the scientific statements of your authors, as I think it detracts from the interest of a story to know that the whole argument is invalidated because of a mis-statement of fact. For instance, in the August number, in A. L. Burkholder's story, "Dimensional Fate," he argues that since a body contracts in the direction of its motion until at the velocity of light it has no length at all, it should have a negative length at velocities greater than that of light. This is utterly false, because the Lorentz factor from which the contraction at a given velocity is obtained is

$$l = L\sqrt{1 - \frac{u^2}{c^2}}$$

where l is the length while in motion, L is the original length, u is the velocity of the body and c is the velocity of light. Thus when u becomes greater than c, the expression inside the square-root sign becomes negative. But the square-root of a negative quantity cannot be expressed numerically at all, hence l becomes an imaginary quantity, not a negative one. He also forgets that the time units of the moving body are affected in exactly the same way so that the time also becomes imaginary. It is for this reason that Einstein suggested that the velocity of light was the maximum velocity of the Universe with the single exception of the velocity of propagation of local time, which is a purely imaginary conception anyway.

I also noticed in the story "A Visit to Venus" that the author states that the day on Venus is only 86 minutes shorter than that on Earth. He has this muddled up with Mars. Venus has a "day" several weeks long.

Apart from these errors, your magazine makes excellent reading.

YOURS SINCERELY,
Surrey, England.

(You mention that A. L. Burkholder had a "mis-statement of fact" in his story. What you mean is that you don't agree with his theories, for they are all theories, and the one that he uses, which has a lot of believers, is as logical to our minds as your theory is to yours, and until one or the other is proven, we cannot say which is correct. There is not any "mis-statement of fact" in his story, because theory is not fact. We are going through an age now where one theory is frequently displaced by another, more to suit the public taste at the time, which is, before long, supplanted by still another.

Astronomers do not agree regarding the length of the day on Venus, simply because no one knows. The planet is eternally enshrouded with clouds that prevent anyone from seeing the surface, though some have professed to have seen it. The opinions of astronomers concerning the length of the Venusian day ranges from an Earth day to a Venusian year.

You should always sign your letters.—*EDITOR.*)

Our Lurid Covers

Editor, WONDER STORIES:

This is the first time that I have written to your magazine in my career as one of your readers. I am writing this letter in reply to the letters written by Donald A. Wollheim and David A. Kyle.

I heartily agree with Mr. Wollheim on several points; but some of his criticisms made my blood boil! His uncalled for slamming of Paul's illustrations made me see red! Doesn't he know that Paul has endeared himself to the readers of W. S. by his excellent and unsurpassed drawings? He should know that "them's fightin' words" and that stf. will fight to the bitter end for him.

But alas and alack-a-day, dear Editor, I must now give you some criticism in spite of your excellent management. Mr. Wollheim was entirely right when he spoke of the small print in your letter department. It is terrible on the eyes and if possible should be enlarged. His criticism on the table of contents was

(Continued on page 760)

Good News for Members of the

SCIENCE FICTION LEAGUE

THE following list of essentials has been prepared for members of the SCIENCE FICTION LEAGUE by the officers at Headquarters.

A FEW WORDS AS TO THE PURPOSE OF THE LEAGUE

The SCIENCE FICTION LEAGUE was founded in February, 1934. The Executive Directors are as follows:

Forrest J. Ackerman, Fredo Binder, Jack Darrow, Edmond Hamilton, David H. Keller, M.D., P. Schuyler Miller, Clark Ashton Smith, and E. E. Starzl. Hugo Gernsback, Executive Secretary, Charles D. Hornig, Assistant Secretary.

The SCIENCE FICTION LEAGUE is a membership organization for the promotion of science fiction. There are no dues, no fees, no initiations, in connection with the LEAGUE. No one makes any money from it; no one derives any salary. The only income which the LEAGUE has is from its membership essentials. A pamphlet setting forth the LEAGUE'S numerous aspirations and purposes will be sent to anyone on receipt of a 3c stamp to cover postage.

One of the purposes of the SCIENCE FICTION LEAGUE is to enhance the popularity of science fiction, to increase the number of its loyal followers by converting potential advocates to the cause. To this end, the SCIENCE FICTION LEAGUE supplies members with membership letterheads, envelopes, lapel buttons, and other essentials. As soon as you are enrolled as a member, a beautiful certificate with the LEAGUE'S seal will be sent to you, providing 15c in stamps or coin is sent for mailing and handling charges. However, this will be given free to all those enrolled members who find it possible to call personally at Headquarters for it.

Another consideration which greatly benefits members is that they are entitled to preferential discounts when buying science fiction books from numerous firms who have agreed to allow lower prices to all SCIENCE FICTION LEAGUE members. The book publishers realize that, the more fervid fans there are to boost science fiction, the more business will result therefrom; and a goodly portion of the publishing business is mailing. For this reason, to assist SCIENCE FICTION LEAGUE members in increasing their science fiction collections by securing the latest books of this type at discounted prices.

SCIENCE FICTION ESSENTIALS LISTED HERE SOLD ONLY TO SCIENCE FICTION LEAGUE MEMBERS

All the essentials listed on this page are never sold to outsiders. They cannot be bought by anyone unless he has already enrolled as one of the members of the SCIENCE FICTION LEAGUE or signs the blank on this page (which automatically enrolls him as a member, always provided that he is a science fiction enthusiast).

If, therefore, you order any of the science fiction essentials without filling out the blank or a facsimile (unless you are already enrolled as a LEAGUE member), your money will be returned to you.

Inasmuch as the LEAGUE is international, it makes no difference whether you are a citizen of the United States or any other country. The LEAGUE is open to all.

LEAGUE LETTERHEADS

A beautiful letterhead has been especially designed for members correspondence. It is the official letterhead for all members of the LEAGUE and is invaluable when it becomes necessary to correspond with other members or with Headquarters.

A—SCIENCE FICTION LEAGUE letterheads, per 100.....Prepaid 50c

LEAGUE ENVELOPES

So that letters mailed to members of the LEAGUE can be immediately recognized, special envelopes that harmonize with the letterheads have been printed.

B—SCIENCE FICTION LEAGUE envelopes, per 100 .....Prepaid 50c

LEAGUE SEALS

These seals, or stickers, are printed in three colors and measure 1¼" in diameter, and are gummed on one side. They are used by members to affix to stationery, letterheads, envelopes, postal cards and the like. The seals signify that you are a member of the SCIENCE FICTION LEAGUE. Sold in lots of 25's or multiples thereof.

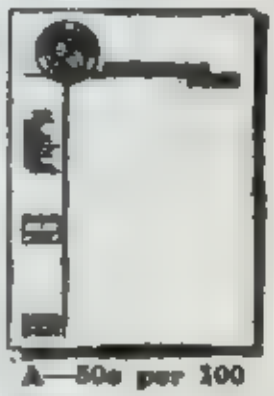
C—SCIENCE FICTION LEAGUE seals, per 25.....Prepaid 15c

LEAGUE LAPEL BUTTON

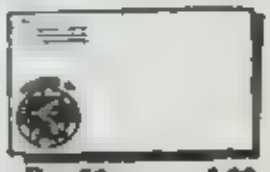
This beautiful button is made in hard enamel in four colors—red, white, blue and gold. It measures ⅞" in diameter. By wearing this button, other members will recognize you. Many friends will perhaps also want to join the LEAGUE. The button must be seen to be appreciated.

D—SCIENCE FICTION LEAGUE lapel button .....Prepaid 35c

DD—SCIENCE FICTION LEAGUE lapel button, like the one described above, but in solid gold.....Prepaid $2.50

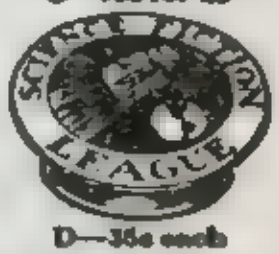


A—50c per 100



B—50c per 100

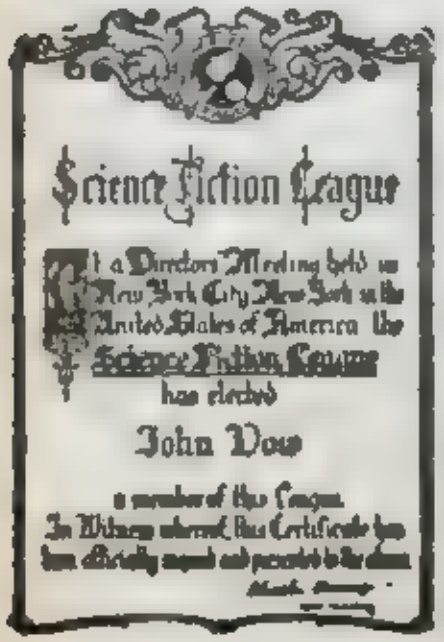
C—15c for 25



D—35c each

If you do not wish to mutilate this magazine, any number of applications will be supplied upon request.

SCIENCE FICTION LEAGUE, 99 Hudson Street, New York, N.Y


Science Fiction League
at a Directors' Meeting held in New York City, New York in the United States of America the Science Fiction League has elected
John Doe
a member of the League.
In Witness whereof, this Certificate has been officially signed and presented to the above.

FREE CERTIFICATE

To the left is an illustration of the certificate provided all members of the SCIENCE FICTION LEAGUE. It is sent to all members upon receipt of 15c in stamps to cover mail charges.

WONDER STORIES is the voice of the SCIENCE FICTION LEAGUE—a monthly department appears in the magazine.

Application for Membership
SCIENCE FICTION LEAGUE

SCIENCE FICTION LEAGUE, 99 Hudson Street, New York, N. Y.

I the undersigned, herewith desire to apply for membership to the SCIENCE FICTION LEAGUE. In joining the LEAGUE, I understand that I am not assessed for membership and that there are no dues and no fees of any kind. I pledge myself to abide by all the rules and regulations of the SCIENCE FICTION LEAGUE, which rules you are to send me on receipt of this application.

I belong to the following class (put an X in correct space): ( ) Professional, ( ) Business; ( ) [redacted] ( ) ..... (Please print information)

Name.....Age.....

Address.....

City and State.....

Country.....Date.....

I enclose 15c. for postage and handling, for my Membership Certificate.

SCIENCE FICTION LEAGUE, 99 Hudson Street, New York, N. Y.

Gentlemen:

[ ] I am already enrolled in the SCIENCE FICTION LEAGUE.
[ ] I am a new member and attach my application to this coupon.

Please send me the following SCIENCE FICTION LEAGUE essentials listed in this advertisement: (Please print information)

.....

.....

.....

for which I enclose $..... herewith.

(The LEAGUE accepts money orders, cash or new U. S. stamps in any denomination. Register cash or stamps.)

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THE READER SPEAKS

(Continued from page 758)

entirely justifiable. It should at least have one large space between titles and the drawing above is certainly a disgrace! The expression on the figures' faces suggests extreme boredom instead of intense interest. Your notice of more words per page is not news. I am fully aware of this and disapprove of this fact because it does not leave enough space between lines.

Your covers are superb. I for one like loud colors on a magazine. It shows the magazine is on its toes and a progressive publication. It was a colorful cover that first started me reading your magazine. Just one more brickbat; I wish you would not ink the inside pictures so heavily.

Now for Mr. Kyle! "Brain-Eaters of Pluto" was terrible! If it was meant for a laugh, it certainly missed the mark! If you ever print such trash again, you will receive a bomb in your mail from me to you.

The fact remains, however, that you have a fine magazine and I am proud to be a subscriber to it. I only hope this letter will not be considered "crabby" because it was not intended to be so.

PAUL E. GROOMS,
Ogden, Utah.

P.S. If you have any more complaints about Paul's drawings, just refer them to me.

(In the answer to another letter, we have printed the solution to the small-print-eye-strain problem, and we are glad to see that some of Mr. Wollheim's criticisms made your blood boil.

A great many of our readers, perhaps the majority, have discovered WONDER STORIES on the newsstands because of our colorful, attractive covers. Without them, we could not secure enough new readers to continue publication, and at the same time, they really represent the magazine.

We're waiting for that bomb.—*EDITOR.*)

BOOK REVIEW

KHAN, PHANTOM EMPEROR OF 1940—by Jerome Oliver. 337 pages. Stiff cloth cover. Size 5¼ x 7⅛". Publisher, J. C. Eckler and Co. $2.50.

The story is based on the attempts of Kaarlo Khan, an oriental who is mad with power, to conquer the world as its supreme ruler, forming a World Soviet Empire.

Captain Roberts of the United States Intelligence Department, in the year 1940, is sent down to the Panama Canal where it is suspected that Khan has planted many boxes of powerful explosives, preparing to blow up the canal and then open warfare. Roberts sets a forest afire near the oriental's camp, which spreads and ignites the explosives, masqueraded as agricultural fertiliser, destroying Khan's plans for the time.

The story then takes us to Europe, to a meeting of the League of Nations in Geneva. The United States joins upon the acceptance of several rules which will prevent all war in the future if Khan can be destroyed.

Roberts falls into Khan's hands while spying on him in Berlin, and is rescued just as he is about to be killed. A traitor to Khan had warned the police. Khan is captured and the danger is passed, leaving the world without a threat of war, due to the United States joining the League of Nations and practically controlling it.

The story has its love interest, being the affair between Captain Roberts, the hero of the story (who later becomes a Major) and Baroness Olga Litovitch of Russia—with the usual happy ending, though they are separated for a long time.

Though the idea of a power-crazed oriental planning to conquer the world may be old in science-fiction, it is developed in an entirely original manner in this novel, a logical, convincing book written by a man who has studied the diplomatic and military situation here and abroad and knows "whereof he speaks." We have the constant threat of the yellow hordes, throughout the book until the very last, while other countries are trying to establish universal peace, trying to overlook their grievances against one another. You will find the story absorbing all the way through, because it presents things that are likely to happen in the near future, a subject of undying interest to science-fiction fans in particular. For all we know, it might read like a history book ten years from now, except for its wonderful development as a work of science-fiction. You are sure to get your money's worth here.

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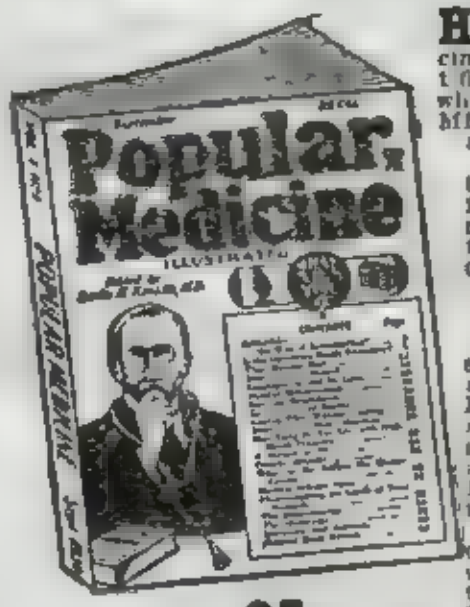

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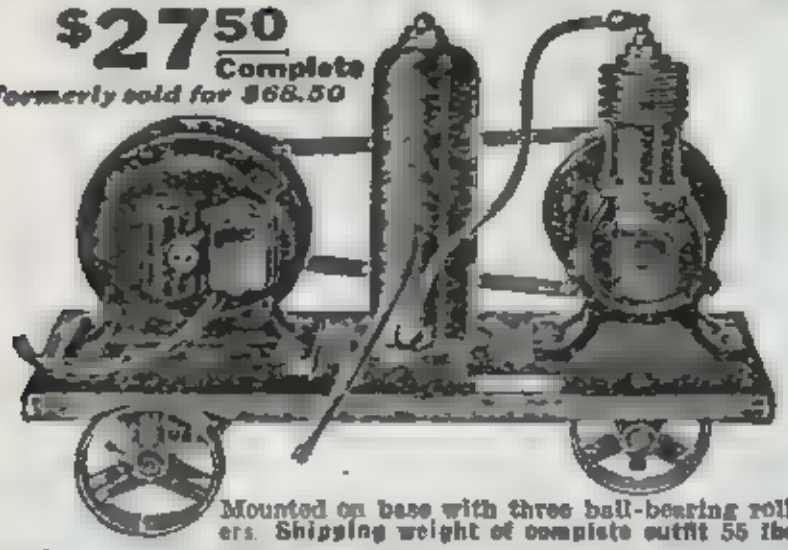

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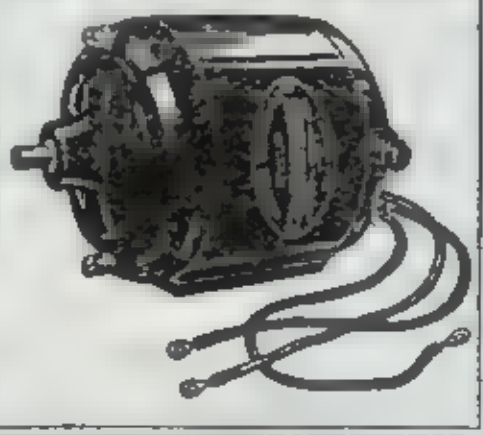

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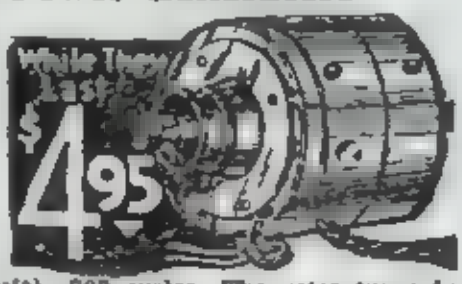

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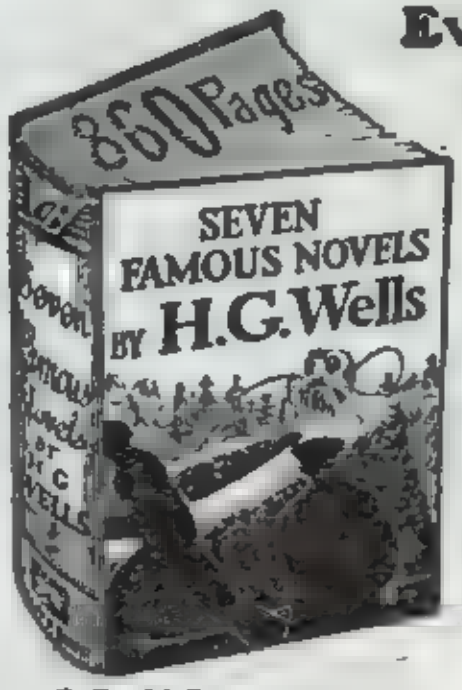

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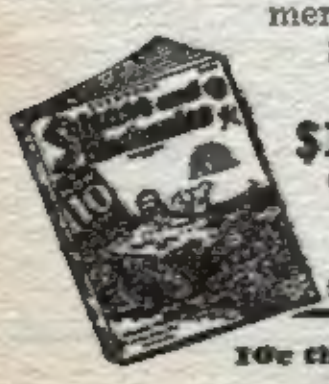

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29x5.00-19		2.85	1.05
30x5.00-20		2.95	1.05
28x5.25-18		2.90	1.15
29x5.25-19		2.95	1.15
30x5.25-20		2.95	1.25
31x5.25-21		3.25	1.15
28x5.50-18		3.35	1.15
29x5.50-19		3.35	1.15
30x5.50-20		3.40	1.25
31x5.50-21		3.45	1.15
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31x4	2.95	0.85	34x4½	3.45	1.15
32x4	2.95	0.85	30x4	3.65	1.35
33x4	2.95	0.85	32x4	3.75	1.45
34x4	3.25	0.85	36x4	3.95	1.65

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The Truth About Abuse

WHAT EVERY WOMAN SHOULD KNOW

Joys of Perfect Mating
What to Allow a Lover to do
Intimate Feminine Hygiene
Prostitution
Birth Control Chart
How to Attract and Hold Man
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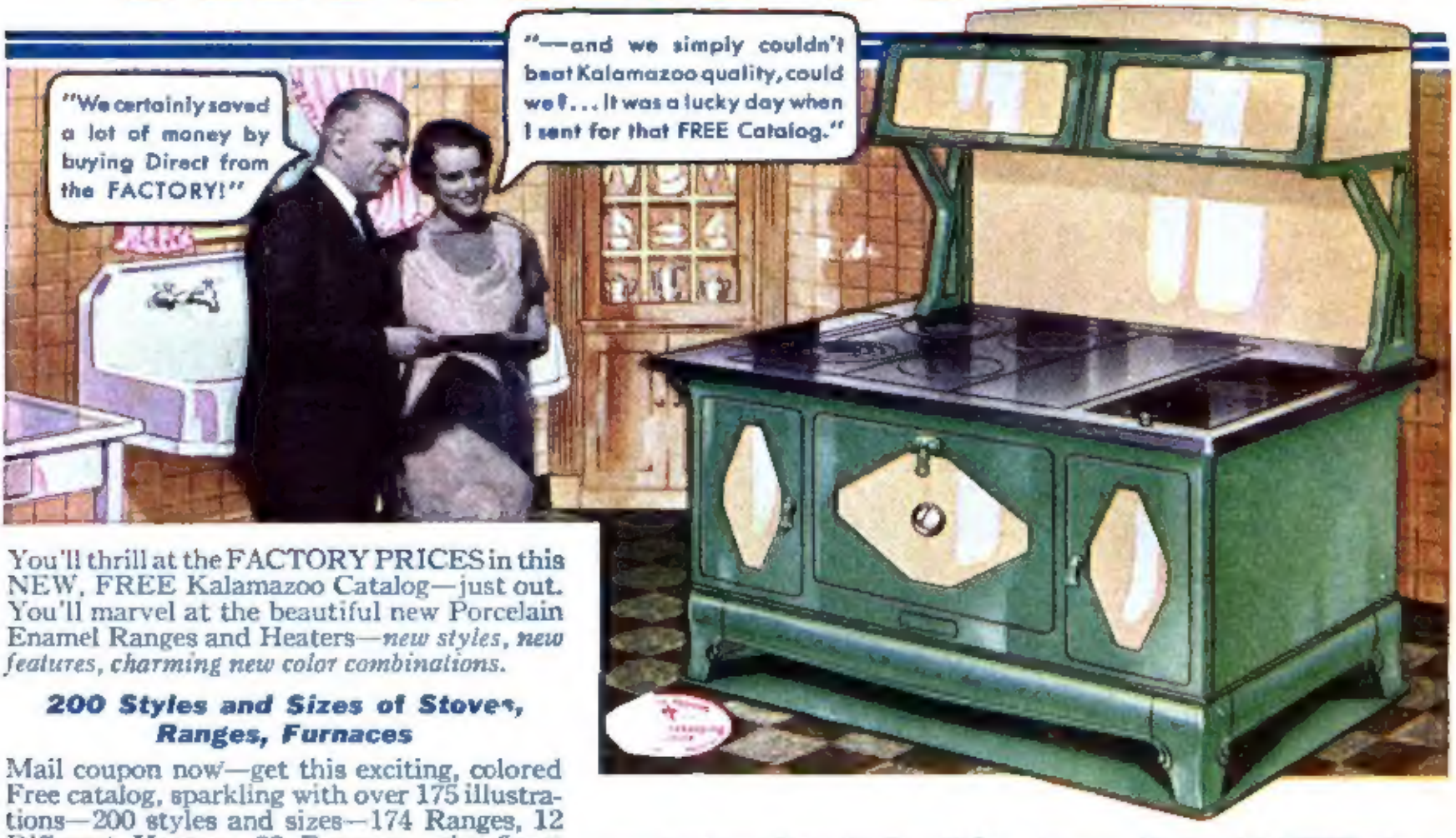
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